
# Capacity, Management, Operation & Maintenance (CMOM) Program

CITY OF TYLER

## Tyler Water Utilities

October 2017

PIPELINE ANALYSIS LLC
WASTEWATER COLLECTION SYSTEM ENGINEERS

SECTION 5

# Sanitary Sewer Overflow Response Plan (SSORP)

## 5.1 Background

The Sanitary Sewer Overflow Response Plan (SSORP) is designed to ensure that each report of a sewer overflow or spill is dispatched to the appropriate crew so that when confirmed the impact of the overflow can be minimized with respect to public health, adverse effects on water quality, aquatic life and customer service. The procedures are outlined in the manual "Sanitary Sewer Overflow Response Plan" included in CMOM Appendix D. This manual provides detailed guidance to staff in responding to SSOs/Spills and documents procedures to evaluate the cause of SSOs and Spills. The SSORP also includes provisions to ensure appropriate notification and reporting to local, state and federal authorities.

This manual along with SOPs are used by staff to inform and provide direction for SSO and spill reporting and follow-up procedures to maintain the City's compliance with Federal and State regulations as they apply to overflows and spills from the wastewater collection system.

The SSORP will be reviewed with the CMOM Plan and updated as needed to adapt to changing conditions, address new concerns, address regulatory changes and implement new standard operating procedures. TWU maintains written procedures indicating the entities, (e.g., drinking water purveyors, the public, public health officials, and the regulatory authority) that will be notified in the event of an SSO that meets public notification requirements. The procedure indicates the chain of communication used to notify the proper personnel of an SSO/Spill event for reporting and remediation. The procedure includes the titles, phone numbers, and responsibility of all personnel involved. The written procedures allow for different levels of response for different types of SSOs. For example, the TCEQ regulatory authority allows that sewer spills less than 1000 gallons that do not reach waters of the State (including other criteria) to be reported on a monthly basis. The TCEQ guidelines are included in the SSORP.

Regulatory compliance and notification issues associated with the collection system are the responsibility of the Operations Manager and Manager of Water Quality. A written standard operating procedure has been prepared on SSO response and reporting. A comprehensive SSORP document is presented in Appendix D for use in training staff in responsibilities and procedures. Refer to Appendix D for detailed information associated with SSO/Spill notification procedures.

SECTION 7

# Root Control Program

## 7.1 Background

Roots can enter a sewer pipe through pipe cracks, open joint, service laterals, etc. Once in the pipe, roots have an optimum environment to grow and flourish. As these roots grow, they collect grease or other debris and grow in size often going unnoticed. When roots get to a size that disrupts the sewer flow or cause damage to pipe, it can lead to SSOs or spills.

Ways that TWU determines root problems in the sewer collection system include:

- Maintenance histories where cleaning staff identified roots creating blockage or slow service.
- SSO cause analysis results will indicate sewer lines that have experienced a stoppage with the cause of stoppage being roots. Each SSO location undergoes CCTV inspection to establish the condition causing an overflow or spill, unless the cause was established by other methods.
- Sewer line CCTV reports will provide accurate evidence of root problems during condition assessment activities. These reports will be used to generate root removal locations for chemical and/or mechanical root removal.

Conditions that increase the likelihood of root problems in a particular sewer section:

- Sewers located near other sewers with known root problems.
- Pipes located near the surface, closer to tree roots.
- Lines located off-road in wooded easements, in tree-lined streets, or at the curb line near trees and roots. In general, sewer lines in residential areas are more susceptible to root problems than lines in industrial areas.
- Lines with many lateral connections per lineal foot, affording greater opportunity for root intrusion.
- Sewer lines constructed with loose-fitting joints or outdated joint packing construction material.
- Asbestos-cement pipe, orangeburg pipe, and clay tile sewers with oakum joints are more susceptible to root penetration. Pipe with air-tight gaskets and seamless pipe are less susceptible.

## 7.2 Root Control Methods

There are several chemical and mechanical sewer line root control methods used by TWU. In some cases, chemical treatments cannot be used, especially when near wastewater treatment plants or because of some other environmental or safety consideration. In these cases, non-chemical methods must be used.

a. <u>Non-Chemical Root Control Methods</u>
Control of roots in sewers can be minimized by system design and construction inspection. Such controls must be implemented before roots become a problem by

careful installation and inspection of sewer lines during construction. Inspection and acceptance testing of new construction minimizes defects that can allow root intrusion.

Physical root control measures for sewer lines involve isolating the sewer pipe from the roots around or near the sewer pipe. Three examples of physical root controls are tree removal, pipe replacement, and pipe re-lining. These root control methods are generally limited to site specific locations where mechanical or chemical controls are not possible.

Mechanical control is the most common method of control used by TWU. It involves the use of cutting tools, hydraulic cutters or other devices that cut and remove roots from sewers. Its main advantage is that it is the only method for immediately relieving a root blockage. Sewer stoppage is a priority and the utility maintains mechanical root control devices for correcting such problems. The main disadvantage of mechanical control is that it provides no residual control or long-term effectiveness. Root masses generally grow back heavier each time they are cut. Tap roots continue to grow in diameter and, in time, place stress on sewer pipe. Good results are obtained if the roots are cut flush with the joints; however, offset joints and cut-in laterals can prevent the use of full-gauge cleaning tools. Mechanical controls often used by TWU include:

- Rodding Machine - Rodding machines are flexible steel rods with rotating blade cutters, augers, or corkscrews. Rodding machines are most effective in small diameter sewers, up to 12". TWU has two rodding machines with root cutters.

- Jetters, also known as flushers, flush trucks, jet rodders, jet trucks, vacuum trucks and hydraulic sewer cleaners, consist of a high pressure water pump, water tank, hose reel, and ½" to 1" sewer cleaning hose. Water shooting through orifices in the rear of the nozzle propels the hose through the sewer, blasting it through obstructions. As the hose and nozzle are retrieved, debris is hydraulically flushed back to the insertion manhole for removal. Jetters can also be equipped with water-propelled spinning root cutters. TWU has two jetters and two vacuum jetters with various cleaning and root cutting nozzles.

b. Chemical Root Controls - Root control products, like all chemicals used to kill plants, are herbicides. Herbicides for sewer root control kill plants by contact. Contact herbicides, like metam-sodium or diquat-based herbicides, have a localized effect and cause quick dieback only of the parts of the plant that they touch. Using proper application methods and correctly calibrating equipment can assure the most effective use of root control chemicals. Proper use of chemicals and equipment minimizes the operation costs for the applicator and protects the health and safety of the applicator, the public, the environment, and the wastewater collection system. The TWU Operations Manager compiles a listing of chemical root control line segments and outsources the chemical root control treatments.

## 7.3 Root Control Reporting

The Operations Manager prepares the annual summary report on the total miles of gravity sewer lines where preventive and reactive root controls were conducted. The sources for those pipes in need of root control are the CityWorks™ work management system, SSO follow-up CCTV inspection cause analysis, cleaning records, CCTV records, FOG records and condition assessment records. For the annual report required by the consent decree, the Operations Manager provides the following:

a. Identify root control sewer segments
b. Identify by percentage of total if chemical or mechanical means were used for root control
c. Identify total miles of gravity sewer where root controls were conducted

# Appendix D

# Sanitary Sewer Overflow Response Plan

# SSORP

# Tyler Water Utilities
# Sanitary Sewer Overflow Response Plan (SSORP)

This document is intended to be reviewed in conjunction with the CMOM Plan and updated as procedures and reporting forms are changed. Changes to the SSORP Manual should be documented by revision number and date.

Revision 1
September 28, 2017

# SANITARY SEWER OVERFLOW RESPONSE PLAN TABLE OF CONTENTS

# 1.0 BACKGROUND AND PURPOSE

This manual documents the City of Tyler's Sanitary Sewer Overflow Response Plan (SSORP) including procedures and reporting requirements of the Texas Commission on Environmental Quality (TCEQ) and Environmental Protection Agency (EPA). The City of Tyler permits with the above agencies are:

Southside Treatment Plant
TPDES Permit WQ0010653002/TX0047988

Westside Treatment Plant
TPDES Permit WQ0010653001/TX0047996

The Sanitary Sewer Overflow Response Plan (SSORP) is designed to ensure that reports of suspected overflows or wastewater spills are confirmed, and once confirmed overflows are addressed so the impact of the overflow/spill can be minimized with respect to public health, adverse effects on water quality and customer service. The procedures outlined in this manual provide guidance to staff in responding to SSOs and wastewater spills and documents procedures to evaluate the cause. The SSORP also includes provisions to ensure appropriate notification and reporting to local, state and federal authorities. **This plan only applies to wastewater overflows and spills and does not apply to any other non-wastewater overflow/spill including hazardous waste spills or overflows of hazardous waste. Hazardous material response team or fire department will assume control of any suspected hazardous waste spill or overflow regardless of source.**

This manual will be used by staff to inform and provide direction for SSO/spill reporting and follow-up procedures to maintain the City's compliance with Federal and State regulations as they apply to the wastewater collection system. It is important that the SSORP and CMOM Plan be reviewed and updated as needed on a regular biennial basis. Figure 1 presents the Utility organization chart with staff responsibilities as they relate to the SSORP. Note that the Lift Station Response Plan (LSRP) is an integral part of the SSORP and is detailed in Appendix 2.

## 1.1 OBJECTIVES

The primary objectives of the SSORP are (1) the protection of public health and the environment, (2) compliance with requirements governing the procedures for responding to SSOs/spills, and (3) minimization of the risk of enforcement actions against the City.

Figure 1
Tyler Water Utilities
Collection System Organization Chart

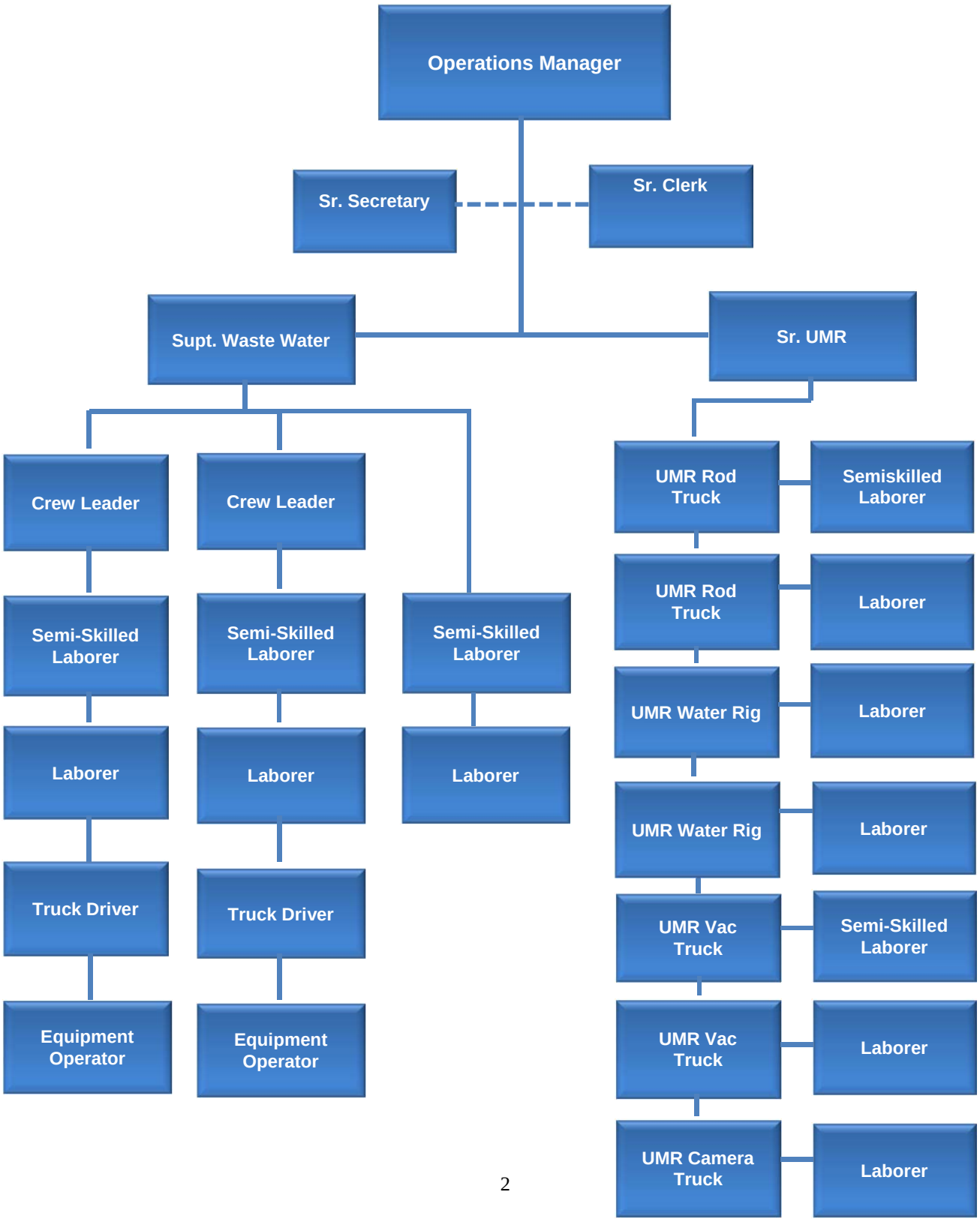
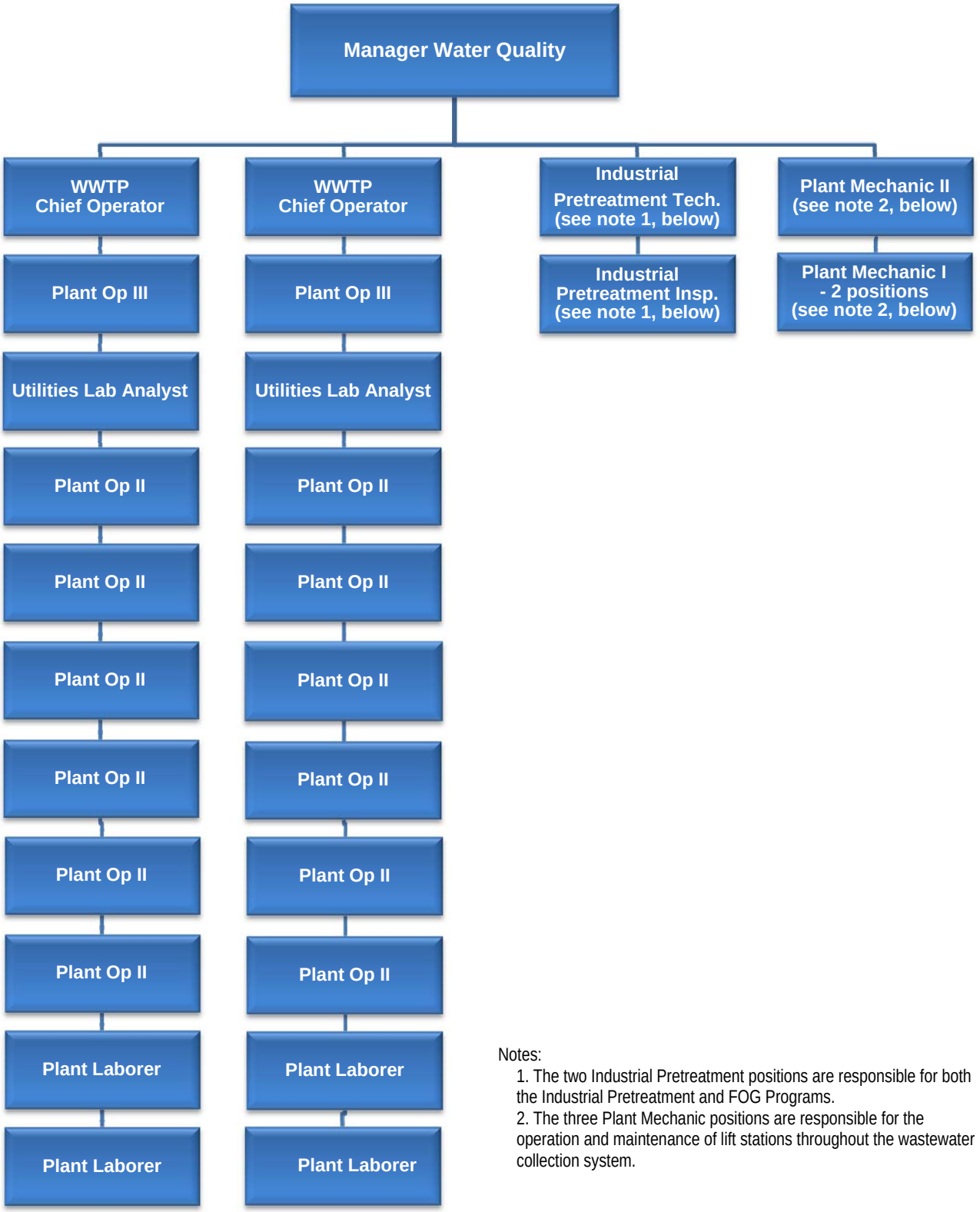


Figure 1 (Continued)
Tyler Water Utilities
Wastewater Treatment Organization Chart




Notes:

1. The two Industrial Pretreatment positions are responsible for both the Industrial Pretreatment and FOG Programs.
2. The three Plant Mechanic positions are responsible for the operation and maintenance of lift stations throughout the wastewater collection system.

The SSORP shall not supersede other City emergency operations plans or Standard Operating Procedures (SOPs) unless determined and directed otherwise by the appropriate authority.

## 1.2 APPLICABILITY

Regulatory and enforcement agencies applicable to this plan:

- State of Texas - TCEQ
- United States of America - United States Environmental Protection Agency (USEPA) Region 6 – Dallas, Texas

Sanitary Sewer Overflow is any discharge of wastewater or in general any wastewater spill in excess of 1,000 gallons. On May 11, 2016, TCEQ commissioners adopted the Volume Based Exemptions for Certain Accidental Discharges (Senate Bill (SB) 912, 84th Legislature). These rules allow any single, accidental discharge or spill of treated or untreated domestic wastewater that occurs at a wastewater treatment or collection system owned or operated by a local government to be reported to the TCEQ monthly, as a summary of spills (TCEQ Form 20756), provided the following conditions are met:

- the spill volume is 1,000 gallons or less;
- it is not associated with another accidental discharge or spill;
- it is controlled or removed before entering water in the state;
- it does not adversely affect a public or private source of drinking water;
- it will not endanger human health or safety or the environment; and
- it is not otherwise subject to local regulatory control and reporting requirements.

The rule requires the City to use standard methods established by the TCEQ when calculating the volume of an accidental discharge or spill. Additionally, the rules created a definition for the history of noncompliance and allow the TCEQ to require more frequent reporting based on that history.

For those SSOs that do not meet the above “Spill” criteria the TCEQ notification should be initiated by the City’s designated staff member within 24 hours of the first responder's confirmation. A written report on the SSO, using TCEQ Form 501, is due within five (5) days of the event. For the purpose of this SSORP, bypasses refer to pipes or channels constructed or intended as a temporary path for the flow within the Tyler collection system during a SSO response event. Bypasses within the collection system are not SSOs, but are a mitigation technique that may be used during a SSO response. Bypasses within the treatment plant shall be reportable when they impact the treatment process or effluent quality in accordance with 30 Texas Administrative Code, Chapter 305, Subchapter O. Employees will have a working knowledge of this plan and will be responsible for ensuring each SSO or spill is handled in a manner that complies with this plan and TCEQ/EPA regulations.

The Texas Water Code applies to any accidental discharge of untreated or partially untreated wastewater from a collection system. However, an overflow at a customer cleanout or private lateral (not caused by the City mainline or lateral sewer) located on private property is defined as a stoppage, not a SSO, and is not reported to TCEQ. Both the TCEQ and USEPA consider an "overflow", "spill", and "treatment plant bypass" events that require reporting per Tyler permit requirements.

**Note: Potable water discharges, usually from water line breaks or flushing water mains, are reportable to TCEQ if the discharge causes or may cause pollution or results in an environmental impact (such as a fish kill). Potable water spills are considered "other waste" by TCEQ and must be reported as soon as possible and at least within 24 hours.**

For purposes of the CMOM and SSORP, a TECQ accidental discharge or spill is a sub-category of SSO that has a different reporting requirement. Section 2.5 of this SSORP presents information on SSO and spill reporting. Appendix 7 presents referenced TCEQ regulations.

## 2.0 OVERFLOW RESPONSE PROTOCOL

Spreadsheets that electronically file and track the frequency and location of collection system overflows and lift station overflows are maintained by the Operations Manager and Manager Water Quality respectively. The spreadsheets will assist in directing corrective measures and prioritizing maintenance activities where chronic problems have been encountered.

The response time is embedded within the CityWorks™ work order system for every work order issued. The CityWorks™ Work Order system documents the time the work order is issued. The responding crew record the arrival time and time the work is completed. Crew location at the time a potential SSO call comes into the Service Center will impact the crew response time. The goal of TWU is to respond to reports of backups in homes or businesses within an average time of 1.0 hours and resolve the issue within an average of 4 hours.

After an overflow event has been resolved and cleaned up, a review will be undertaken to address the following criteria:

1. An attempt will be made to determine the cause of a sewer overflow by review of the Notice of Wastewater Overflow field report (Appendix 1) by the Superintendent or designee. Where the cause of the SSO is uncertain, then additional actions may be initiated depending on the suspected cause.
2. Follow-up inspections (including visual inspection or televised inspection) may be performed at the site of a sewer overflow in order to determine the cause of the SSO and the corrective action(s) needed to prevent reoccurrence. Data will be captured in the CityWorks™ Work Order system. If no additional evidence of cause is found, these inspections may be terminated.
3. After each sewer overflow, the Preventive Maintenance (PM) schedule for the affected sewer(s) for cleanings, inspections, etc., may be considered in order to prevent similar future occurrences. The site of the sewer overflow will remain on a more frequent PM schedule, if necessary, until it is reasonably determined that the site is no longer a risk for a future occurrence due to maintenance needs.
4. After the occurrence of a sewer overflow, notification of relevant parties will be conducted (if applicable) in order to prevent future similar occurrences. Examples of relevant parties include employees and management of restaurants, manufacturers, construction sites, etc. if their actions contributed to an overflow. Notification may include information on City Ordinances applicable to the given parties and type of operation, requirements that must be met in order to comply with the given ordinance, and the measures to be taken by the personnel to eliminate future overflows.

The overflow response protocol presents a strategy for the City to mobilize labor, materials, tools and equipment to correct or repair and mitigate any condition which may cause or contribute to: 1) an un-permitted discharge (i.e., discharge to surface waters); and, 2) other sewer overflows and lift station overflows which are successfully contained and present no threat to jurisdictional waters of the State (surface waters). The plan considers a wide range of potential system failures that could create a SSO to surface waters, structures, and/or land surfaces.

## 2.1 RECEIPT OF INFORMATION REGARDING A SEWER OVERFLOW/SPILL

A sewer overflow or spill may be detected by City employees, residents, businesses or by others. The City answers telephone calls dialed to the Service Center at 903-531-1285. The Service Center is primarily responsible for receiving phone calls from the public and dispatching them to the appropriate staff. The Service Center is responsible for receiving calls of possible sewer overflows/spills from the wastewater collection system (e.g., sewer pipes and lift stations) and for notifying the appropriate personnel in the City. After normal business hours and weekends, calls are forwarded to the Golden Road Water Treatment Plant 903-597-6541 where on-call crews are dispatched. Citizens can contact the City of Tyler or receive information from the City using the following methods:

1. Service Center: For water emergencies call 903-531-1285 during regular business hours; for after hour emergencies call 903-597-6541. These numbers are posted on the City web site, publications and provided to media.
2. On-line Services: The City of Tyler web site, www.cityoftyler.org, provides information on each department, frequently asked questions and notification numbers. In addition, Tyler Public Works maintains a web site, www.tylerpublicworks.com, specific to the utility. Tyler Public Works is a joint effort between the City of Tyler Engineering Department and Tyler Water Utilities to highlight capital improvement projects, city standards, consent decree information and ongoing public works projects.
3. Social media accounts, Facebook, Twitter, YouTube, Pinterest and LinkedIn are used by various City departments to keep citizens up to date on current issues that may affect their services.
4. Newsletters: The City publishes electronic newsletters that residents can receive or download from the city web site. The My Tyler email newsletter was launched in 2003 as a tool to keep citizens better informed about their municipal government. The email newsletter is produced by the Communications Department and sent out periodically to those who register on the My Tyler page on the City website. The emails include the latest information, announcements and programming updates from all City of Tyler Departments.

In general, residents are not well versed in the difference between a water line leak, a sanitary sewer overflow or overflowing storm sewer. Many calls from residents, particularly during dry weather, are therefore not properly identified until the responding crew arrives on scene. SSO reports from customers may actually be water main leaks. Although the Service Center will attempt to obtain accurate information from the resident, the responding crews will confirm if an SSO actually exists. The first responders will clarify and document the on-site conditions and impacted waters, if any. For possible sanitary sewer overflows, the Service Center obtains information offered by the caller and attempts to collect other relevant information regarding the possible overflow, including:

a. Contact/Customer Name.
b. Contact/Customer Phone and E-mail.
c. Location of the suspected overflow.
d. Observations of the caller (e.g., odor, duration, back or front of property).
e. Other relevant information that will enable the responding crews, if required, to quickly locate and respond to the caller's observation.

The Service Center prepares a service request and enters this information into the CityWorks™ work order system and creates a new work order. The service center dispatcher notifies the crew of

suspected overflows. In the event possible overflow calls outnumber the available response staff, calls will be prioritized in the following manner (listed in order from highest to lowest priority):

- Sewage in a creek; sewer overflow or lift station overflow to dry land with immediate and direct public access.

  This is the highest priority. The dispatcher will IMMEDIATELY DISPATCH this call to the On-Call supervisor responsible or designee. If the dispatcher is unable to contact the supervisor or designee, dispatcher will continue calling until a supervisor or crew leader is reached, regardless of her/his area of responsibility.

- Sewer Overflow or Lift Station Overflow to Dry Land with no immediate and direct public access. Order of Priority for Cave-In:
  a. Sewer pipes damaged/suspected damage
  b. No reported damage

- Utilities damaged by a construction activity

- Locating utilities. When receiving such calls, confirm whether or not the call is for emergency related locating of utilities.

- Customer service requests

The Service Center dispatcher provides notification of suspected sewer overflows directly to the appropriate crew.

Sewer overflows detected by any personnel in the course of their normal duties shall be reported immediately to the service center where a service request will be initiated. The service center dispatcher shall record the relevant overflow information, create a CityWorks™ work order, and notify the appropriate crew.

The responding crew shall confirm any reported possible sewer spill or lift station overflow. The on-site supervisor or designee shall document the SSO using the Field Reporting Form (See Appendix 1). Until confirmed, the reported spill or overflow should be referred to as a "possible" spill or overflow. The Operations Manager (for collection system SSOs) or Water Quality Manager (for lift station SSOs) will notify TCEQ within 24 hours of a confirmed SSO. The TCEQ Water Quality Noncompliance Notification Form TCEQ - 501 shall be reviewed and signed by the Operations Manager or Manager Water Quality and then submitted within 5 days of confirmation of the reported overflow to the TCEQ Regional Office and TCEQ Austin Office. If the event was reported within 24 hours via phone, or an incomplete form was submitted as part of the 5 day reporting requirement, a completed and signed updated (supplemental) Form 501 shall be faxed or mailed as soon as possible to the TCEQ Regional Office and Austin Office. A copy will be mailed to the Austin address located at the bottom of the form.

Applicable supervisory or management personnel will be responsible for reviewing these completed forms to determine follow-up actions to minimize the SSO re-occurrence. Table 1 summarizes the overflow response tracking protocol.

The personnel on duty shall immediately convey all information regarding lift station failures and overflows to the Manager Water Quality and initiate the investigation and correction. The Lift Station Power Outage Response Plan provides specific information on procedures associated with each lift station outage. The detailed Lift Station Power Outage Response Plan resides with each of the following and is being used as guidance in minimizing the impact of power outages or lift station failures:

- *Operations Manager*
- *Manager Water Quality*

Copies are distributed to responding staff and posted at lift stations and distributed at training sessions.

# TABLE 1
# Sewer Overflow Response Tracking Protocol

Step Event/Activity

1. Report of possible sewer overflow or lift station overflow received by the Service Center at 903-531-1285 (after hours at Golden Road Water Treatment Plan 903-597-6541).

2. Service Center Dispatcher prepares a service request through CityWorks™ documenting the caller-provided information.

3. Service Center Dispatcher contacts crew personnel who deploy a response crew to investigate the possible reported sewer overflow.

4. Verification of SSO/spill by response crew and initiate corrective actions.

5. Responding crew completes investigative work order and reports to supervisor and provides an assessment of the significance of the overflow (e.g., volume/flow rate of spill, contained vs. discharge to surface water) and confirms overflow.

6. Supervisor confirms collection system overflows to the Operations Manager or Lift Station overflows to the Manager Water Quality. The Operations Manager or Manager Water Quality contacts TCEQ Regional Office within 24 hours of confirmed SSO. Director of Utilities completes the 5 day report TCEQ Notice of Wastewater Overflow Form 501 and submits to both TCEQ Regional Office and TCEQ in Austin.

7. In the case of a TCEQ spill, summarize monthly spill report using TCEQ Form 20756. Save the sent SSO confirmation FAX report to document FAX transmission to Regional Office and mail copy to Austin.

8. For overflow events lasting longer than 24 hours or events that require updating of initial 24 hour notice, Operations Manager or Manager Water Quality will prepare a supplemental TCEQ Form 501 and send updated form to applicable regulatory agencies. All SSO events require written 5 day reports.

9. Operations Manager, Manager Water Quality and Utilities Director will make the decision based on established criteria by TCEQ on Public Advisory Procedures and Media Notification Procedures to be implemented, if any.

## 2.2 DISPATCH CREWS TO SITE OF SEWER OVERFLOW

The purpose of immediate response to a failure of any element within the wastewater collection, treatment and lift station systems, which threatens to cause or causes a sewer overflow, is to isolate and correct the problem. Crews and equipment shall be made available to respond to any actual sewer overflow location. Figure 2 presents the standard Daily Crew and Equipment Staffing available to respond to overflows. Also, additional maintenance personnel, materials and equipment shall be called as needed.

1) Dispatching Crews

- Service Center prepares service request work orders created for reported overflows and notifies the appropriate On-Call designee or Plant Mechanic. Observations will be logged on the active work order.
- Upon confirmation by the responding crew of a reported sewer overflow, if necessary, the Supervisor shall directly call for support or if requested to do so, the service center may be contacted to call up appropriate additional crews and resources on behalf of the responding crew.

2) Crew Instruction and Work Orders

- Responding crews shall be dispatched, and shall receive instructions from their supervisor regarding appropriate crews, materials, supplies and equipment to be deployed.
- The utilities dispatcher, communicating with crews responding to a request for service, shall ensure that the entire communication has been received and acknowledged by the responding crews. To avoid delay, all standard communications procedures shall be followed. All employees dispatched to the site of a sewer overflow shall proceed immediately to that site. Any delays or conflicts in assignments must be immediately reported to the appropriate Supervisor or designee for resolution.
- Responding crews shall report their findings, including damage to private and public property or threat to public health and safety, to their supervisor or designee as frequently as necessary to keep him/her abreast of the conditions found.
- Supervisor or designees and utilities dispatcher shall assist, as necessary, at crew shift changes, in the transfer of all pertinent information to the next shift, including any details of the problems and observations described by customers.

3) Preliminary Assessment of Damage to Private Property

- The responding crew shall use discretion in providing assistance to a property owner/occupant who has sustained property damage. The responding crew should not enter private property for purposes of assessing damage unless directed otherwise by a supervisor or designee. Residents should be instructed to contact the Senior Utility Specialist at 903-531-1238 to make damage claims. The City of Tyler letter to residents affected by building backups is provided in Appendix 5. This letter will be handed out to affected residents and provide information on obtaining cleanup assistance. The City of Tyler Senior Utility Specialist is responsible for addressing any claims residents may have regarding backups.

- If property damage was caused by the use of a Tyler Water Utilities jetter or vactor, contact the Senior Utility Specialist (903-531-1238) who will assist the resident in the claim protocol. After hours and on weekends, responding crews will provide the resident contact information for making a claim.

4) Field Supervision and Inspection

- The supervisor or designee assigned to a confirmed sewer overflow shall visit the site of the overflow to assure that provisions of this overflow response plan and other directives are met. The supervisor or designee will determine if outside vendor services is required and will make the initial contacts to facilitate needed outside services.
- In the case of a lift station overflow to a creek or dry land, the superintendent shall be responsible for notifying the Manager Water Quality.

5) Coordination with Hazardous Material Response

- Responding crew shall contact their supervisor as soon as possible whenever a suspicious substance (e.g., oil sheen, foamy residue) is found on the ground surface, surface waters or ponded areas, or upon detection of a suspicious odor (e.g., gasoline) not common to the sewer system.
- Should the supervisor decide it is necessary to alert the TCEQ in consultation with the local Fire Department, the responding crew shall await the arrival of the hazardous material response team to take over the scene. Remember that any vehicle engine, portable pump or open flame (e.g. cigarette lighter) can ignite an explosion or fire where flammable fluids or vapors are present. Keep a safe distance and observe caution until assistance arrives. The on-site staff shall also take measures to keep the general public away from the impacted area. Perimeter control of pedestrian and vehicular traffic shall be established using traffic barricades, barricade warning tape, or temporary barrier/safety fencing with signage, "Caution Do Not Enter" where appropriate.
- The Fire Department's hazardous material response team shall be contacted by dialing 911 if the overflow contains or is thought to contain hazardous material.
- Upon arrival of the hazardous material response team, the responding crew shall take direction from the lead person with that team. Only when that authority determines it is safe and appropriate for the responding crew to proceed under the SSORP with the sewer overflow containment, correction and clean-up activities, can they then proceed.

## 2.3 OVERFLOW CORRECTION, CONTAINMENT, AND CLEANUP

Overflows may result from blocked sewers, pipe failures, lack of capacity, power outages, treatment plant, lift station malfunctions, contractors or mechanical malfunctions among other natural and manmade causes. City staff is on alert and shall respond immediately upon receipt of notification of a possible overflow. This section describes specific actions to be performed by the responding crews during a sewer, treatment plant or lift station overflow. Table 2 presents the SSO Checklist. These actions are instrumental for:

- Protecting public health, environment and property from sewer overflow and restore the surrounding area back to normal as soon as practical.
- Establishing perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills).
- Promptly notifying regulatory agencies of preliminary overflow information and potential impacts.
- Containing the sewer overflow to the maximum extent practical including preventing the discharge of sewage into surface waters and returning as much of the sewage back into the collection system as practical.
- Minimizing the City exposure to any regulatory agency penalties and fines.

Under most circumstances, TWU will handle response activities with its own work forces. The City possesses the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that temporary actions necessary to divert flows and repair the problem do not produce problems elsewhere in the system. For example, the repair of a force main requires the shutdown of the lift station. If the closure is not handled properly, a backup of sewage may create other overflows. Circumstances may arise when the City requires the support of an outside construction contractor. This may occur when a deep pipeline requires an emergency repair in order to resolve the overflow and extensive shoring or bypass pumping is necessary.

Containment of the SSO is critically important to minimize the impact of the SSO. Responding crews must evaluate the local conditions and select equipment and techniques to contain the SSO. The method used for containment will vary based on site conditions. General options for containment and equipment are summarized in Table 2. Dry weather SSOs may be temporarily contained in the storm sewer system by plugging the pipeline (pneumatic plugs or sand bags) downstream of the SSO location. Lift stations tributary to the SSO should be turned off where possible and/or manually controlled to maximize system storage upstream of the SSO location.

Information that can be distributed to residents to address building backups is presented in Appendix 5. On-site crews and supervisors should maintain copies of the information for distribution to residents following a backup or overflow on private property.

## 2.4 RESPONSIBILITIES OF RESPONDING CREW UPON ARRIVAL

It is the responsibility of the first responding personnel who arrive at the site of a sewer, treatment plant or lift station overflow to protect the health and safety of the public by mitigating the impact of the overflow to the highest extent possible. Emergency contact telephone numbers are presented in Appendix 3 should conditions warrant immediate notification. The crew shall take responsible actions to protect public health and water quality by mitigating the impact of the overflow to the greatest extent possible. However, should the cause of the overflow not be the responsibility of the City, e.g., caused by an overflowing private sanitary sewer, but there is imminent danger to public health, public or private property, or to the quality of waters of the State, then prudent emergency action shall be taken until the responsible party assumes responsibility and provides appropriate action. Upon arrival at an overflow the responding crew shall do the following:

1. Determine the cause of the overflow, e.g. sewer line blockage, sewer line break, lift station mechanical or electrical failure, treatment plant process flow problem, etc.
2. Identify and request, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause.
3. Determine if private property has been affected. If yes, contact the Senior Utilities Specialist at 903-531-1238.
4. Take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate lift station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way).
5. Extra care should be taken in securing the work site immediately adjacent to or around private property.
6. Request additional personnel, materials, supplies or equipment that will expedite and minimize the impact of the overflow.

# TABLE 2
# SSO Response Checklist

- ✓ Investigation, SSO Confirmation and Site Assessment
- ✓ Dispatch Initial Response Personnel and Equipment
- ✓ Stop and Contain Overflow
- ✓ Assess Best Cleanup Method
- ✓ Initiate Site Remediation
- ✓ Inspect Receiving Waters (if applicable)
- ✓ Initiate Sampling of Affected Waters (if applicable)
- ✓ Post Warning Signs (if applicable)
- ✓ TCEQ Initial Notification within 24 hours
- ✓ Public Notifications (if applicable)
- ✓ Complete Remediation
- ✓ Collect Follow-up Samples (if applicable)
- ✓ Remove Signs (if applicable)
- ✓ TCEQ 5 day report
- ✓ Follow-up SSO Root Cause Analysis

## Major SSO Containment Options and Required Equipment

| Overflow onto Ground | Required Equipment |
|---|---|
| • Create earthen trench or berm to contain or divert SSO | • Sand bags |
| • Place sand bags in gutter or around low ponding area | • Plastic sheets |
| • Turn off or manually control tributary lift station if possible | • Bypass pumps/hose or pipe |

| Overflow Into Storm Sewer or Open Ditch | Required Equipment |
|---|---|
| • Contact storm water department to coordinate containment | • Sand bags/pneumatic plugs |
| • Locate storm drain/ditch at downstream end point | • Plastic sheets |
| • Plug affected storm system outlet(s) and coordinate with Operations Superintendent to contain and cleanup SSO | • Bypass pumps/hose or pipe |
| • Turn off or manually control tributary lift station if possible | |

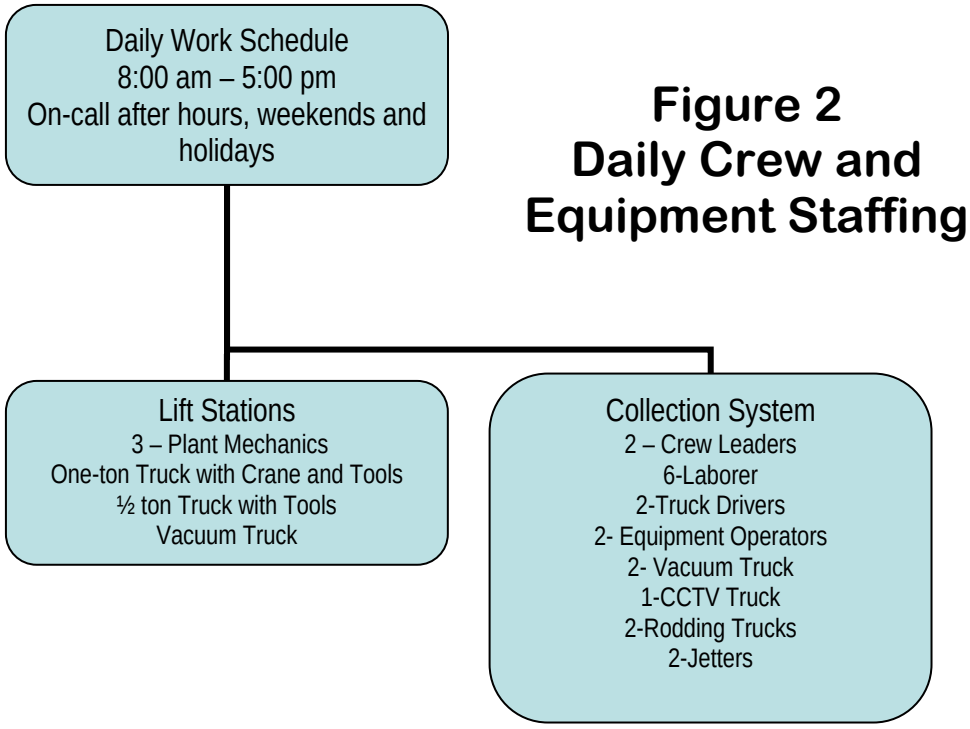



**Figure 2**
**Daily Crew and Equipment Staffing**

In general the first response equipment and crew will be a trouble truck dispatched to the potential site. Upon confirmation and extent of the SSO a request of additional crew(s) and equipment may occur. Equipment available for secondary response includes:

- 2-Vactors
- Generators
- Backhoe
- Portable pumps ( Local Vendor)
- Bypass pipe/hoses
- Portable lighting equipment
- Sand bags
- Spill containment supplies
- Disinfectant
- Posting signage

## 2.5 Initial Measures for Containment and Reporting

Figure 3 summarizes the Sewer Overflow Response Plan. Crews arriving initially will:

- ✓ Initiate measures to contain the overflowing sewer and recover, where possible, sewage which has already spilled, minimizing the impact to public health or the environment.
- ✓ Determine the immediate destination of the overflow, e.g. storm drain, surface water, ground surfaces, structure, etc.
- ✓ Identify and request additional materials and equipment to contain or isolate the overflow, if not readily available.
- ✓ Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert/pump into downstream sanitary sewer manhole, etc.
- ✓ Check treatment plant process equipment/lift station status.

In the event of a prolonged sewer line blockage or collapse, treatment plant issues, or lift station outage, a determination shall be made in a timely fashion to operate a portable pump-around operation to direct flows around the defective or damaged facility. Personnel shall be trained in proper portable pump capacity selection and the setup of temporary suction and discharge piping to assure safe and reliable emergency operation. Other methods of bypassing shall be utilized when appropriate such as fluming and berms to contain flows while repairs are made.

Appropriate measures shall be taken to determine the proper size and number of portable pumps required to effectively handle the sewer bypass pumping operation. Any regulatory agency issues that arise as a result of a prolonged pumped bypass situation (e.g., need for redundancy of portable pumping) shall be addressed in conjunction with emergency repairs.

Sewer overflow sites including contaminated soil, stream and riverbanks, and shorelines of other types of bodies of water, shall be thoroughly cleaned after an overflow. No readily identifiable residues (e.g., fecal matter, rags, papers, or plastics) shall remain.

Where practical, the area shall be thoroughly flushed with the wash-down water which should be contained and properly disposed. Heavy flushing could make containment of wash down water impractical. Solids and other debris shall be flushed, swept, raked, picked-up and transported to proper disposal area.

The overflow site shall be secured to prevent contact by the public until the site has been thoroughly cleaned. Posting, if required, shall be undertaken.

Where appropriate, the overflow site shall be disinfected and deodorized.

If a ponded area contains sewage which cannot be pumped dry, it shall be treated with bleach or dry high-test hypochlorite (HTH). If sewage has entered a body of water that may contain fish or other aquatic life, bleach or other disinfectants shall not be applied. Appendix 4 contains additional guidance on the quantification of SSOs and the use of disinfectants.

The Notice of Wastewater Overflow Form and CityWorks™ Work Order shall be completed by the responsible Supervisor. The TCEQ shall be notified, as specified in Section 6.0, immediately following confirmation of a spill into a waterway and no later than 24 hours after confirmation. The hard copy 5 day report (Form 501) for a SSO to surface waters is forwarded to TCEQ and EPA when repair work on the sewer is completed but no later than five days of confirmation of a SSO. If a SSO

## Confirmed Sanitary Sewer Overflow or Spill

**Sanitary Sewer Overflow:**

1. Contain if possible
2. Correct problem causing SSO
3. If significant SSO requiring Public Notice (see Public Notice Guidelines below):
   a) contact Operation Manager or Water Quality Manager who will notify TCEQ within 24 hours
   b) Determination to deploy signage
   c) Director notifies City Manager and Communications Director
   d) Media Notifications
4. Clean affected area and disinfect
5. Operations Manager or Water Quality Manager will report SSO within 5 days (Form 501)

Public Notice Guidelines:

1. The SSO is 50,000 gallons or more where one or more of the following conditions also exists:
   A. the SSO occurs within ½ mile of a public or private source of drinking water;
   B. the SSO occurs within ½ mile of a private drinking water well;
   C. the SSO occurs within ½ mile up-gradient of a surface water intake of a public or private source of drinking water;
   D. the SSO occurs in an active groundwater recharge area;
   E. the SSO occurs up-gradient and within ½ mile of a karst terrain or shallow alluvial well that is a source of drinking water; OR
2. The SSO is 100,000 gallons or more.
3. Send copy of public notice to TCEQ within 48 hours

**Sanitary Sewer Spill:**

1. Contain and correct problem causing spill
2. Contact Operations Manager or Water Quality Manager who will report spill to TCEQ monthly (Form 20756)

Report all SSOs within 24 hours using TCEQ Form 501 Reporting Form UNLESS it meets the following Spill criteria, then report monthly on TCEQ Form 20756 Reporting Form:

1. the spill volume is less than 1,000 gallons;
2. it is not associated with another accidental discharge or spill;
3. it is controlled or removed before entering water in the state;
4. it does not adversely affect a public or private source of drinking water;
5. it will not endanger human health or safety or the environment; and
6. it is not otherwise subject to local regulatory control and reporting requirements.

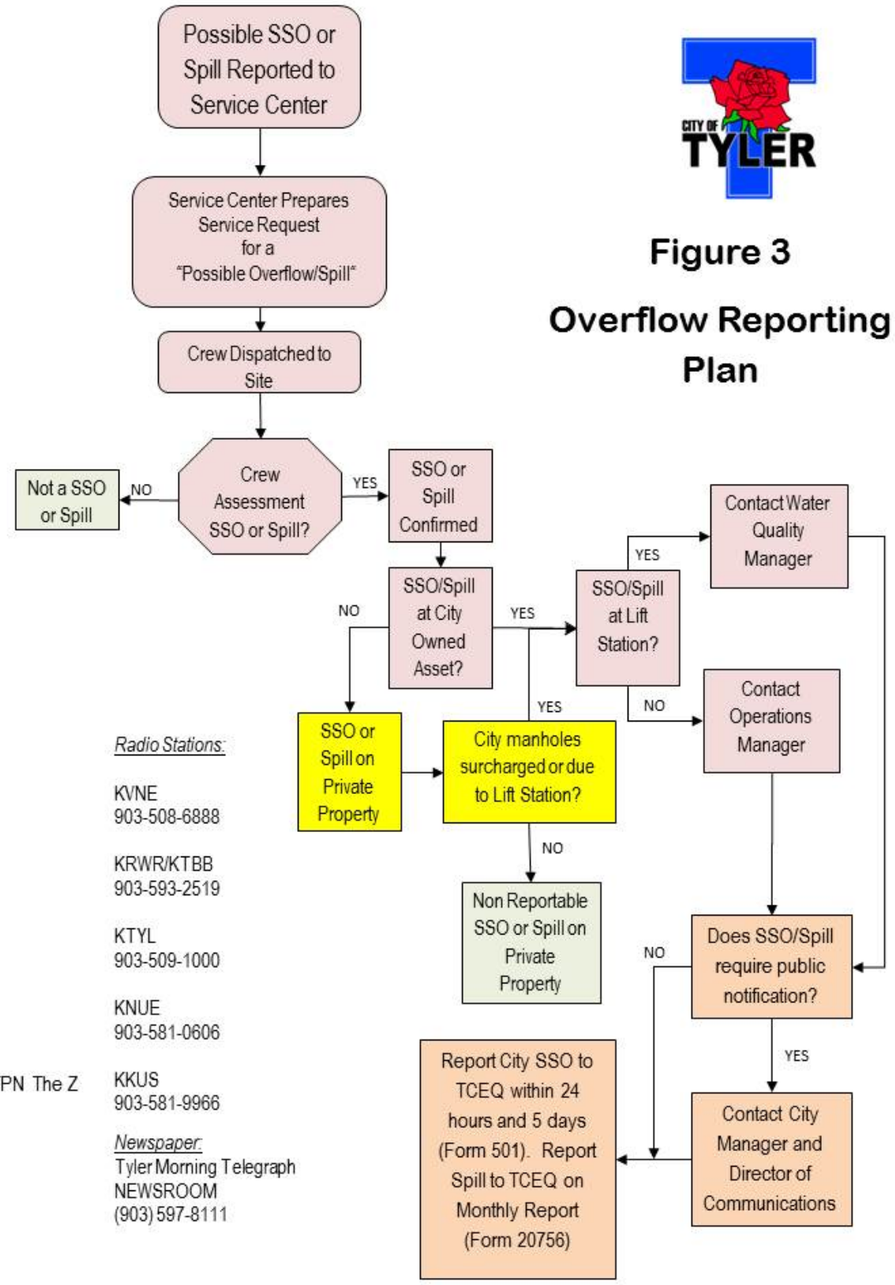



**Figure 3**

**Overflow Reporting Plan**

**U.S. Environmental Protection Agency (EPA)**
Phone: (214) 665-6444
Fax: (214) 665-7446
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**Texas Commission on Environmental Quality (TCEQ)**

TCEQ Region 5, Tyler
TCEQ Regional Office
Attn: Lisa Fisher
2916 Teague Drive
Tyler, TX 75701-3734
Tel: 903-535-5137
Fax: 903-525-0384

**Austin Office Mailing Address**
TCEQ
Water Quality Compliance Monitoring Team MC 224
Enforcement Division
P.O. Box 13087
Austin, Texas 78711-3087

**Texas Parks & Wildlife Department (TPWD) - Kills and Spills Region 2**
Greg Conley
11810 FM 848
Tyler, Texas 75707
Office: (903) 566-2518
Cell: (903) 520-3821
Fax: (903) 566-2357
Email: greg.conley@tpwd.state.tx.us

**TPWD 24-Hour Communication Center**
4200 Smith School Road
Austin, Texas 78744
Phone: (512) 389-4848

*Television Stations:*

KYTX CBS19 & MYTX
2211 ESE Loop 323
Tyler, TX 75701
903-581-2211
Fax: 903-581-5769

KLTV ABC 7
105 West Ferguson Street
Tyler, TX 75702
(903) 597-5588

KETK NBC/KFXK FOX51/KTPN The Z
4300 Richmond Road
Tyler, Texas 75703
(903) 581-5656

*Radio Stations:*

KVNE
903-508-6888

KRWR/KTBB
903-593-2519

KTYL
903-509-1000

KNUE
903-581-0606

KKUS
903-581-9966

*Newspaper:*
Tyler Morning Telegraph
NEWSROOM
(903) 597-8111

**Note: All communications with any media will be coordinated through the City's Communication Department**

requires more than 24 hours to correct, a written status report shall be forwarded by certified mail to TCEQ every five days until correction of the spill is completed. Information recorded for Sewer Overflows should include the following:

1. Indication of whether there was an actual observation of sewer overflow or lift station overflow running into surface waters, or whether there was only an indication (e.g. sewer residue on the ground surface leading to the surface water) that sewage had possibly flowed to surface waters but was not actually observed.
2. Indication that the sewer overflow had not reached surface waters. Guidance in characterizing these overflows as dry land only includes:

    a. Sewer overflow to underground storm drains (with no public access) where a Maintenance Crew verifies, by inspection, that the entire volume is contained in an impoundment and where complete cleanup occurs, leaving no residue.
    b. Overflow where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach surface water and where complete cleanup occurs leaving no residue.

A determination of the start time of the sewer overflow using one or more of the following methods:

a. Date and time report of an overflow was received by the Service Center representative.
b. Date and time of a visual observation by a City employee.
c. Lift station flow charts and other recorded data.
d. Treatment plant observations.

A determination of the stop time of the sewer overflow using the following method:

a. When the blockage is cleared or flow is controlled or contained
b. Visual observations.

A determination of the volume or rate of the sewer overflow or lift station overflow:

a. When the rate of sewer overflow or lift station overflow is known multiply the duration by the rate of flow to determine the volume of the overflow.
b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding, obtain dimensions of ponding and calculate volume in gallons. Total volume divided by the appropriate time interval will provide a flow rate.
c. If a manhole is observed overflowing use the chart and photographs in Appendix 4 to estimate the rate of overflow, then multiply by the duration of the overflow.

An assessment of any damage to public and private property should be documented. Personnel shall not enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property.

The supervisor or designee confirming the reported sewer overflow shall make follow-up contact with the customer(s) reporting the incident summarizing the actions taken to resolve the overflow, to clean up the area, and to post and barricade the area if necessary.

*Note: The City of Tyler currently notifies the TCEQ Regional office by telephone within 24 hours of a confirmed sanitary sewer overflow. The 5 day report, using TCEQ form 501, is transmitted by FAX to the Regional TCEQ Office and a copy is mailed to TCEQ in Austin.*

*The TCEQ Form 501 is also used for TCEQ defined spills and marked as "Monthly" and is not submitted to TCEQ. Rather this information is used to complete the monthly TCEQ Form 20756 (Monthly Spill Reporting Form) to summarize TCEQ defined spills. This summary report is sent to the TCEQ Regional Office via FAX and a copy mailed to TCEQ in Austin monthly.*

**2.6 Post SSO Primary Cause Analysis**

The Operations Manager, for collection system overflows, or Manager Water Quality, for lift station overflows, is responsible for reviewing and maintaining the SSO spreadsheet and database. Part of the review process is the evaluation of the primary cause of the SSO following containment and cleanup. The primary cause of the SSO will be analyzed to determine if other actions are necessary to prevent future SSOs at this location. The Managers may implement additional actions to establish the cause and then initiate actions to prevent future SSOs at the location. For purposes of addressing repeat backups, blockages and SSOs, a "chronic problem" is defined as a backup, blockage or SSO that occurs at the same asset and/or same line segment at a frequency of more than once in two calendar years. Following are activities the Manager or designee may initiate to further evaluate and address the SSO:

- Evaluate the location and identify line segment(s) for televised inspection
- Review video and logs to isolate the primary cause of the SSO
- Review available historical data including SSO history, cleaning and inspection history
- Determine if the site is a chronic problem that warrants detailed investigation
- Prepare work order and place line segment on a preventive maintenance cleaning schedule or where a maintenance schedule already exists, increase cleaning frequency
- Prepare work order and place line segment on root removal list
- Prepare work order and place line segment(s) or specific location(s) within the line on repair list
- Contact FOG Coordinator (Manager Water Quality) with area suspected of contributing to grease blockage. FOG coordinator will review and may generate work order for increased inspections in the area, distribute FOG outreach educational materials in the area, and/or issue notice of violation where appropriate.

Data collected during the analysis will be used to update the SSO spreadsheet with primary cause for the SSO. The updated spreadsheet will be the basis for the TCEQ reporting. The Operations Manager or Manager Water Quality will review the primary causes for SSOs and make necessary adjustments to preventive maintenance cleaning schedules, root removal activities, pipeline repair or rehabilitation schedules, etc. to prevent repeat SSOs.

## 3.0 MONITORING/SAMPLING OF SURFACE WATERS AFFECTED BY SEWER SPILLS

The City will monitor and sample surface waters affected by sewer overflows. Once reported, personnel from the City will respond to the location of the spill. These personnel will take the following steps, immediately after initiating efforts to stop the overflow:

- Stop spill and determine volume of spill (i.e. total gallons).
- Determine if spill goes to a stream or receiving water. The impact of the spill on water quality is assessed by visual inspection for abnormal conditions such as effects on aquatic life, abnormal color, odor, etc.
- Notify sampling team if a SSO reaches a stream or receiving water. If a storm or other conditions present an unsafe sampling environment, sampling may be omitted and impacts will be based on visual observations only until sampling can be resumed.
- Post signs for restricting public access if necessary.

Requests for sampling during overflows may be initiated by the Operations Manager or Manager Water Quality. The Manager Water Quality shall be contacted to initiate sampling actions due to overflows. If a contact is not available, leave a message telling each person who you are and that you have preceded in contacting staff and with whom you plan to speak. The supervisor is responsible to see that the Manager Water Quality is contacted in the case of any overflow where sampling is required. Figure 4 presents a general sampling flow diagram that summarizes the sampling procedures. The sampling request shall be made by contacting:

Manager Water Quality
Office: (903) 939-8278

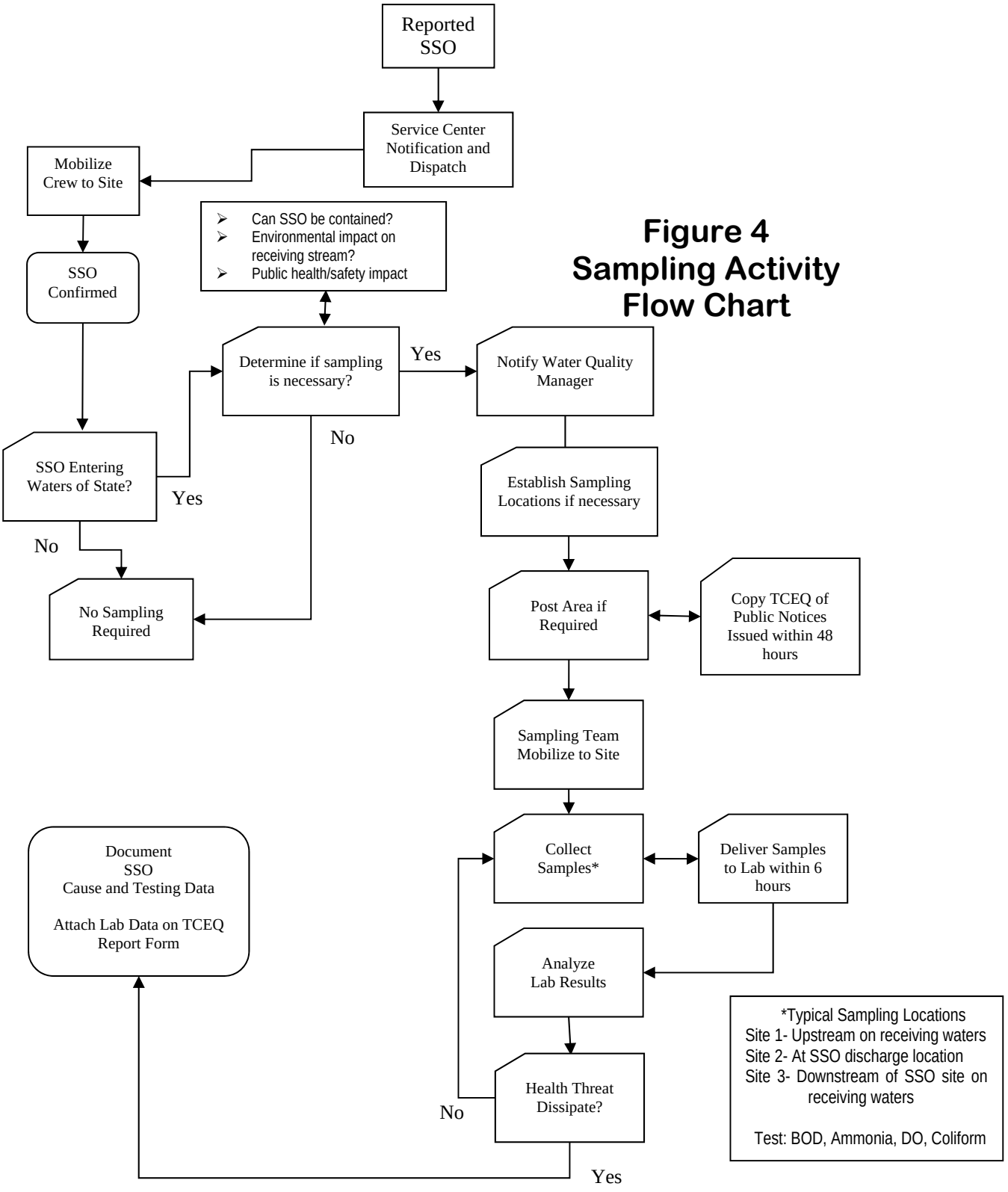



**Figure 4**
**Sampling Activity Flow Chart**

# 4.0 NOTIFICATION PROCEDURES

This section describes the actions the City may take, in cooperation with TCEQ and EPA to protect the public and limit public access to areas potentially impacted by overflows. Actions to limit public access to areas impacted by sewer overflows and lift station overflows which do not reach surface water but affect ground surfaces, structures or other resources are also addressed.

## 4.1 POSTING AND SIGNAGE

TWU has primary responsibility for determining whether signage (see Figure 5) is necessary for areas affected by sewer overflows to ground surfaces, structures or surface waters. The main factor in determining when and where to post signs is the degree of public access to any effects of the overflow that may remain at the site. The posting of signage would not necessarily prohibit use or access to the area unless posted otherwise, but provide a temporary warning of potential public health risks due to a recent sewage contamination. TWU may elect to use such signs, for example, where heavy flushing made it impractical to recover all of the wash-down water commingled with sewage. In cases when posting of signs is not sufficient or not feasible, door hangers may be used instead of, or in addition to, signs. The Operations Manager and Manager Water Quality shall make this decision. Table 3 outlines the posting decision process for City personnel.

# Table 3
# SANITARY SEWER OVERFLOW (SSO)
# POSTING DECISION PROCESS

Step Event/Action

1. Responding superintendent or crew supervisor confirms reported SSO.
2. Supervisor makes recommendation on intent to either post or not to post, or intent to use other public notification measures depending on the degree of the public's accessibility of the area impacted by the spill.
3. Regardless of the posting decision, the Operations Manager (for collection system SSOs) or Manager Water Quality (for lift station SSOs) calls TCEQ when making the 24 hour initial report. SSO data is forwarded to the Senior Utility Specialist for compiling the 5 day SSO report (Form 501) for the Director to sign and submit to TCEQ. Note that the Operations Manager and Manager Water Quality also submit spill data to the Senior Utility Specialist for compiling the monthly report (Form 20756) for the Director to sign and submit to TCEQ.
4. The Operations Manager or Manager Water Quality is advised of the final posting recommendation. Operations Manager or Manager Water Quality will determine to either post or not to post.
5. Locations of overflows to surface waters must be posted until the area is free from contaminates as evidenced by the on-site observations or laboratory test results.

# Figure 5
# SANITARY SEWER OVERFLOW (SSO) POSTING SIGNAGE



Note: The Operations Manager or Manager Water Quality will determine which signage, if any, is appropriate for the location and report to the Director.

### 4.2 OTHER PUBLIC NOTIFICATION

Should it be determined that the posting of signs indicating that surface waters, ground surfaces or structures have been subject to a sewer overflow are not sufficient, the Operations Manager or Manager Water Quality shall determine the need for further public notification. This additional notification will be accomplished through the use of pre-scripted notices made available to the print or electronic news media for immediate publication or airing, or by other measures. See Appendix 5 for example news releases. Circumstances under which further public notification may be considered include:

- When permanent repairs to resolve an overflow condition will take in excess of 24-48 hours and the reduction in the usage of water in homes and businesses would assist in managing the operation of the locally affected sewer or lift station;
- When permanent repairs to resolve an overflow condition will take in excess of 24-48 hours and the citizenry need to be advised of repair schedules and possible traffic detours in the vicinity of the repairs and/or sewer or lift station pump-around operations;
- When permanent repairs to resolve an overflow condition which took in excess of 24-48 hours are completed and the City wishes to recap the episode such as the circumstance(s) contributing to the cause of the overflow, measures taken to repair and cleanup the affected area, time required to effect repairs, total gallons of the overflow, and any continuing monitoring of surface waters/ if applicable; and,
- When posting of waterways and ground surfaces affected by overflows cannot be effectively accomplished to adequately protect public health and safety (e.g., receiving water is bordered by private property).

### 4.3 REGULATORY AGENCY NOTIFICATION PLAN

Agency notifications shall be performed in parallel with other City internal notifications. The procedures for providing notification to the media of a sewer overflow are presented in this section. Internal notification and mobilization of personnel are detailed in Section 2.0 – Overflow Response Procedure.

Using data supplied from the confirmation of reported possible overflows and subsequent updates from response personnel, the supervisor shall notify the Operations Manager or Manager Water Quality. The Operations Manager or Manager Water Quality shall notify TCEQ within 24 hours of all SSOs. A five (5) day report (Form 501) will be prepared and submitted. Spills that meet TECQ requirements (refer to Section 1.2) will be grouped and reported monthly on Form 20756.

Laboratory and/or field sampling test data will be attached or sent when available as a supplemental report.

### 4.4 TCEQ PUBLIC NOTIFICATION REQUIREMENTS

The Texas Commission on Environmental Quality regulations addresses public notification requirements. Subchapter C: Public Notice of Spills or Accidental Discharges from Wastewater Facilities Owned or Operated by Local Governments (Chapter 319.302 Notification Requirements and 319.303 Notice to Local Officials and Local Media) states:

*§319.302. Notification Requirements.*

*(a) The owner of a facility must designate a responsible individual to comply with this subchapter.*

*(b) In addition to the noncompliance notification to the commission required by §305.125(9) of this title (relating to Standard Permit Conditions) and any notification required under Chapter 327 of this title (relating to Spill Prevention and Control), the owner of a facility, through its responsible individual, must notify appropriate local government officials and the local media (see §319.301 of this title (relating to Definitions)) whenever one of the following types of spills occurs from the facility:*

*(1) a spill, regardless of volume, that the facility owner knows or has reason to know, will adversely affect a public or private source of drinking water;*

*(2) a spill with a volume of 50,000 gallons or more where one or more of the following conditions also exists:*

*(A) the spill occurs within 1/2-mile of a public or private source of drinking water;*

*(B) the spill occurs within 1/2-mile of a private drinking water well which is located within 1/2-mile of a public water supply well;*

*(C) the spill occurs within 1/2-mile up-gradient of a surface water intake of a public or private source of drinking water;*

*(D) the spill occurs in an active groundwater recharge area;*

*(E) the spill occurs up-gradient and within 1/2-mile of a karst terrain or shallow alluvial well that is a source of drinking water;*

*(3) a spill of 100,000 gallons or more.*

*(c) The responsible individual must issue the notice as quickly as possible, but not later than 24 hours after the facility becomes aware of the spill. The notice may be hand-delivered, sent by facsimile, e-mail, or by phone with follow-up written notice. The contents of the notice must comply with §319.303 of this title (relating to Notice to Local Officials and Local Media.)*

*(d) Within 48 hours of providing notice to appropriate local government officials and local media, the responsible individual must provide to the commission regional office in whose region the spill occurred a copy of the notice, the date notice was provided to local officials and local media, and a list of notice recipients.*

*§319.303. Notice to Local Officials and Local Media.*

*(a) Persons responsible for a wastewater spill must ensure notice complies with subsections (b) and (c) of this section. Responsible persons may contact the commission to obtain a template which may be used in the event of a wastewater spill.*

*(b) For all wastewater spills as referenced in §319.302(b) of this title (relating to Notification Requirements) the notice must contain the following:*

*(1) one of the following statements:*
*(A) a spill from a wastewater treatment facility has occurred; or*
*(B) a spill from a collection facility has occurred;*
*(2) the facility name;*
*(3) person to contact for further information;*
*(4) the location of the spill;*
*(5) the estimated date and time of the spill;*
*(6) the estimated volume of the spill (number of gallons);*
*(7) the type of the spill (domestic, industrial, etc.);*
*(8) a description of the area potentially affected, including a down-gradient and lateral distance from the spill site;*
*(9) the suspected cause of the spill; and*
*(10) a list of actions that have been taken including, but not limited to:*

*(A) notification of:*
*(i) appropriate local government officials; and*
*(ii) the TCEQ regional office;*
*(B) containment of the spill;*
*(C) increased monitoring of water supply systems; and*
*(D) initiation or completion of cleanup activities.*

*(c) If the wastewater spill meets the conditions of §319.302(b)(2) and/or (b)(3) of this title then the notice must also contain the following precautionary statements:*

*(1) Persons using private drinking water supply wells located within 1/2-mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.*
*(2) Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.*
*(3) The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.*
(4) *If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.*

Figure 6 presents the TCEQ Notification Template for use in providing the required notification should the overflow meet the requirements for notifying City officials and media. The following summarizes the normal protocol when City officials and media must be notified of an overflow:

1. The Director, Operations Manager or Manager Water Quality will prepare a City of Tyler Media Release Letter with attached TCEQ Notification Letter Form TCEQ-20627 (See Figure 6) and contact the Environmental Compliance Engineer 903-531-1085 and brief them on the content and details of the event. A copy of the proposed notification letter will be sent to the City Communications Department that will coordinate the notification efforts and contact the appropriate local City officials and media outlets.

   This notification is done as soon as possible, but not later than 24 hours after becoming aware of a major overflow.

2. Immediately (no more than 48 hours) after distributing the public notice, the Operations Manager or Manager Water Quality shall submit a copy of the notification to TCEQ Region 5 by faxing notice to 903-525-0384.

3. After hours and weekend sewer overflows are reported to the Golden Road Water Treatment Plant at 903-597-6541. Sewer overflows that occur on weekends will be called in to the TCEQ and will be submitted on the following Monday.
   a. Calls received by the Service Center from the media dealing with SSOs are always referred to the Communications Department.
   b. The Director or designee is authorized to be interviewed by the media as the designated spokesperson.

# Figure 6
# TCEQ Public Notification Template

## Texas Commission on Environmental Quality

## Public Notification Form for Wastewater Discharges

## Information about the Discharge

An unauthorized discharge or spill of wastewater has occurred from:

Wastewater Treatment Facility: _____ Collection System: ___

**Facility Name:**

**Person to contact for information:**

**Location of spill(s):**

**Estimated date and time of spill(s):**

**Estimated volume of spill(s):**

**Type of Spill:**

**Description of the area potentially affected, including down gradient and lateral distance from spill(s) site:**

**Suspected cause of spill(s):**

.

## List of Actions Taken Including but, not Limited to:

**Notification of**

**Appropriate local government officials:** _____

**TCEQ Regional Office:** _____

# Figure 6 - Continued
# TCEQ Public Notification Template

**Containment of spill**:

**Increased monitoring of water supply systems:**

**Initiation of cleanup activities**:

## Precautionary Statements:

1. Persons using private drinking water supply wells located within ½ mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.
2. Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.
3. The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.
4. If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

## 4.5 MEDIA REQUESTS

The City of Tyler is committed to maintaining an open and informative dialogue with members of the media as well as the general public. In order to avoid confusion and provide the most factual information regarding utility issues, as well as protect our customers' right to privacy, the City Communication Department should be notified of any media (newspaper, trade publication, radio, etc.) contact.

Cooperation with reporters is essential in order to provide them with the needed information in a timely manner. They are the means of transmitting correct and factual information from the City of Tyler to the general public. If an employee is approached in the field or at work by a member of the media concerning an incident involving the utility (whether it is an accident involving a City of Tyler employee, a major or extended interruption of service, or an issue considered to be controversial in nature) that employee should advise the reporter that their contact should be the City's Communication Department. Offer them the appropriate phone number or obtain their name and phone number for the Communications Department so that a return call may be made. The employee should also advise their immediate supervisor or manager that an inquiry has been made by the media so the supervisor or manager may forward details of the incident to the Communications Department. The Communications Department will determine if the inquiry should be redirected.

Managers, supervisors or crew leaders can serve as the contact in the field for questions regarding routine projects that may be taking place near or on a customer's property, such as repair work or outage response. If a customer approaches a field employee with questions regarding a routine project, they should politely direct the customer to the manager, supervisor or crew leader. If that person is not on site at the time, the employee should offer to take the customer's name and phone number and have the manager, supervisor or crew leader contact them as soon as possible to answer any questions or concerns.

## 4.6 REQUESTS FOR CONSTRUCTION SITE AND FACILITY TOURS

Safety of the general public and security of City of Tyler facilities should be of utmost priority for all employees. For this reason, construction site and facility tours for members of the general public should be cleared through the office of the Director. That person will be in charge of seeking approval of a facility tour from the respective member of the Department. No one from the general public or the media is permitted to enter non-public areas of the City of Tyler facilities without first seeking permission from the Director. Employees are within their right to ask unauthorized persons to leave the premises immediately.

# 5.0 DISTRIBUTION AND MAINTENANCE OF SSORP

The SSORP reflects the procedures established for responding to reports of possible sewer overflows and confirmed overflows from the wastewater collection system, treatment plants and lift station system so as to:

- Minimize the adverse effects of sewer overflows on public health, water quality and beneficial uses of the receiving waters.
- Minimize the sewer overflow volume which enters surface waters.

Updates of the SSORP shall be made to reflect all changes in City and regulatory policies and procedures as may be required to achieve its objectives.

## 5.1 REVIEW AND UPDATE OF SSORP

The SSORP shall be reviewed every two years in association with the CMOM Plan and amended as appropriate by the Operations Manager or Manager Water Quality. The City shall:

- Periodically review the SSORP and update the manual as needed
- Conduct annual training on the use of the SSORP with appropriate personnel.
- Review and update, as needed, the various contact person lists included in the SSORP.

## 5.2 REVIEW OF PROCEDURES AND PREPAREDNESS

Training for preparedness and responsiveness associated with sewer and lift station overflows will be provided as required to the supervisory staff. This training provides basic standard operating procedures and reporting requirements. The SSO training of city staff will focus on;

- Defining the goals and purpose of the SSORP;
- Review of Overflow Response Procedures;
- Monitoring/Sampling of Surface Waters;
- Public Advisory Procedure;
- Regulatory Notification Procedure;
- Media Notification Procedures; and,
- SSORP updates and revisions.
- SSO/spill quantification and use of Appendix 4
- Caution in the use of disinfectants

The purpose of the training program is to provide personnel with the proper training, skills, and equipment to complete job requirements safely and in compliance with regulatory requirements. The department provides safety training to all staff, including office personnel. TCEQ maintains electronic training records for those City employees with PDH annual training requirements for operator certification.

## APPENDIX 1

## NOTICE OF WASTEWATER OVERFLOW FORMS

**Note: The City of Tyler currently notifies the TCEQ Regional office by telephone within 24 hours of a confirmed sanitary sewer overflow. The 5 day report, using TCEQ form 501, is transmitted by FAX to the Regional TCEQ Office and a copy is mailed to TCEQ in Austin.**

**The TCEQ Form 501 is also used for TCEQ defined spills and marked as "Monthly" and is used to complete the monthly TCEQ Form 20756 (Monthly Spill Reporting Form) to summarize TCEQ defined spills. This summary report is sent to the TCEQ Regional Office via FAX and a copy mailed to TCEQ in Austin monthly.**

**TCEQ Region 5, Tyler**
**TCEQ Regional Office**
**Attn: Lisa Fisher**
**2916 Teague Drive**
**Tyler, TX 75701-3734**
**Tel: 903-535-5137**
**Fax: 903-525-0384**

**TCEQ Compliance Monitoring Team (MC224)**
**Enforcement Division**
**P.O. Box 13087**
**Austin, TX 78711-3087**

| SSO Notification | |
|---|---|
| **Origination Date:** 09/01/2017 | **Policy Number:** Wastewater-016 |
| **Revision:** New | **Approved:** |

## Sanitary Overflow Notification Procedures

Notification of a sanitary overflow from a manhole, lift station or a significant discharge from a property lateral will follow the steps outlined below:

1. Service Center dispatches personnel to the scene of the possible overflow (manhole, cleanout, etc.)

2. Personnel arrives onsite and confirms overflow/spill and begins mitigation efforts.

3. Personnel will contact the appropriate Supervisor immediately. The Supervisor will then notify the Operations Manager for collection system overflows or the Water Quality Manager for lift station overflow. The Manager will notify TCEQ (if required). Notification should include location, amount of overflow and steps being taken for mitigation or as much information as possible at the time of notification.

4. Supervisor will travel to overflow site to determine the severity of the overflow, gather information. If a fish kill is verified, immediately notify TCEQ, TPWD, Operations Manager, Water Quality Manager and NetHealth with any updated information about the overflow. Post appropriate signage if necessary to control access. Upon this notification of TCEQ and TPWD, ask each whether or not there will be a site visit from any of their representatives. If either indicates that a site visit will occur, ask for contact information, an estimated time of arrival and document the information provided from each.

5. After overflow condition is mitigated, clean up area to extent possible. Communicate with TCEQ and/or TPWD representative to establish a time to clear away all dead fish (identifying species and size) from affected area. Clear away all solids from overflow area. Use de-chlorination equipment and flush hydrant to flush clean water over area affected by overflow. Spray disinfectant and deodorizer on affected area after cleanup completed.

   If overflow is determined to have been caused by a blockage created from non- flushables such as paper towels, disposable mops, etc. advise the Supervisor. The Supervisor will then notify the offending property owner/management that non-flushables are to be disposed of properly (not through the sanitary sewer system).

6. As soon as is practical, and as safety and light permits, the creek adjacent to the overflow or the creek where the overflow runs into will be walked and inspected. This inspection will be for water quality conditions and to ensure fish kill has been thoroughly mitigated.

7. Manager or his designee must notify by phone or fax (within 24 hours): TCEQ Regional Office, phone 903-535-5137 (leave message if after hours) Fax 903-525-0384, TPWD Emergency Response Spill Reporting hotline (800)832-8224 and 24 hour communication Center at 512-389-4848 or at the number(s) listed below. Notification must include location, volume, content of discharge, time the discharge was stopped and what was done to mitigate the discharge.

a. If volume reaches 100,000 gallons, immediately notify City Communications Department, at (903) 531-1272, Director of Utilities and/or Director Public Works (903) 531-1234.

b. Within 48 hours after notifying the public, the Superintendent or his designee must report to the regional office that public notice has been given.

c. SSO meeting the requirements for public notification occurring outside of normal business hours, then the Superintendent or his designee should also notify the TCEQ Emergency Response Hotline (1-800-832-8224)

8. Complete written report of Unauthorized Discharge per using TCEQ Form 501 within 5 days

a. Send original hard copy via form letter per attachment #32 to:
TCEQ Region 5, Tyler
TCEQ Regional Office
Attn: Lisa Fisher
2916 Teague Drive
Tyler, TX 75701-3734
Tel: 903-535-5137
Fax: 903-525-0384

b. Send copy via form letter per attachment to:
TCEQ Water Compliance Monitoring Team
Enforcement Division
P. O. Box 13087
Austin, Texas 78711-3087

c. Send copy via form letter per attachment to:
Greg Conley, Pollution Biologist
TPWD Kills and Spills Team
11810 FM 848
Tyler, Texas 75707
Office (903) 566-2518
Cell (903) 520-3821
Fax (903) 566-2357
greg.conley@tpwd.state.tx.us

d. Copy the following on above letters:
Environmental Compliance Engineer
City Manager

# Tyler Water Utilities Wastewater Collection
## Field Reporting Form

903-531-1285

Work Order No.:_____

1. Notification of possible wastewater blockage/release received by: ☐ Phone Call ☐ Email ☐ In Person
2. Notification received: Date: _____ Time: _____ AM / PM
3. Name of person making report:
   _____
   Phone # or email: _____
4. Location:
   Address, intersection or other location information:
   _____
   a. Crew dispatched at:
   Date: _____ Time: _____ AM / PM
   b. Arrived onsite:
   Date: _____ Time: _____ AM / PM
5. Did release of wastewater occur? ☐ Yes ☐ No
6. Is release a result of issue with public sewer system?
   ☐ Yes - Asset ID: _____ ☐ No = Private
   a. ☐ Pipe c. ☐ Lift Station
   b. ☐ Manhole d. ☐ WWTP
   e. ☐ Cleanout ☐ Other_____
7. Date/Time release cleared:
   Date: _____Time: _____ AM / PM

   Estimated duration of release: _____hr. _____min.
   Estimated flow rate: _____ GPM
   Estimated volume of release: _____ gallons
   Estimation Method: ☐ TCEQ
   ☐Other:_____
8. Was any amount of the release contained/ recovered?
   ☐ Yes _____gallons ☐ No

Method of recovery: a. ☐ Pumped back into collection system
b. ☐ Cleaned with vacuum truck
c. ☐ Other _____

Cleanup actions taken: ☐ Area disinfected ☐ Area flushed

9. Corrective Action Taken:_____

10. Potential field cause(s) of release (check all that apply):
    a. ☐ Fats, Oils, Grease g.☐ Flooding
    b. ☐ Roots h.☐ Excess Infiltration/Inflow
    c. ☐ Debris i. ☐ Contractor Damage
    d. ☐ Breaks Due to Erosion j. ☐ Vandalism
    e. ☐ Breaks, Other Causes k.☐ Undetermined
    f. ☐ Equipment malfunction l. ☐ Other: _____
11. Follow-up actions recommended:
    ☐ cable ☐ wash ☐ wash and treat ☐ root removal
    ☐ replace sewer tap
    ☐ other: _____

12. Route for wastewater released :
    ☐ Building Backup
    ☐contained before storm drain
    ☐ entered storm-drain
    ☐ entered dry streambed
    ☐ entered flowing or standing water in creek

    Name of receiving waters: _____
13. Was fish kill observed? ☐ No
    ☐ Yes – Report to Operations Manager Est. No. Killed: _____
    TWU Employee Name: _____Date: _____

**To Be Completed by Supervisor**

A. A Classification of Wastewater Release:
   1. ☐ TPDES non-compliance due to:
      a. ☐ unauthorized discharge
      b. ☐ failure to properly operate and maintain system
      Specify:_____
   2. ☐ Spill requiring report under TWC 26.039.
      ☐ 24 hour report ☐ Monthly report
   3. ☐ SSO as defined by Consent Decree

B. Was upstream/downstream sampling conducted?
   ☐ No ☐ Yes – See Sampling Results

C. Potential danger to human health and safety or the environment:
   ☐ No ☐ Yes – Describe: _____

D. Discharge route: _____
   Watershed for:

   ☐Wastewater Treatment Plant – South Side
   TPDES Permit 10653-02/TX004798

   ☐Wastewater Treatment Plant – West Side
   TPDES Permit 10653-002/TX0047988

E. Date scheduled for CCTV: _____(within 5 days)
   Date completed: _____Video #: _____Score: _____

F. Action taken to prevent reoccurrence :
   ☐ repair manhole/ invert
   ☐ repair sewer main
   ☐ schedule line to replaced or slip lined
   ☐ place on High Frequency Cleaning list: ☐ No
   ☐ Yes - ☐ 12 mo. ☐ 6 mo. ☐ 3 mo.
   ☐ schedule follow-up CCTV inspection: ☐ No
   ☐ Yes - ☐ 1 year ☐ 2 years ☐ 3 years
   ☐ call lift station technician
   ☐ other_____

G. Supervisor review:

Name: _____ Date: _____

**City Point of Contact:**
**Kevin R. Olson/Operations Manager**
**TCEQ Region 5: Lisa Fisher 903-535-5137 FAX 903-525-0384**
**EPA Region 6: Phone 214-665-6595; FAX 214-665-2168**

# Water Quality Noncompliance Notification

*See back of Form for Guidance for Completion*

☐ Unauthorized Discharge ☐ Reportable Effluent Violation ☐ Monthly Spill Report ☐ Other

## General Information

**Entity Name:** **Telephone No: (903) 531-1285**

☒ Permittee ☐ Subscriber ***Permit Number:** ☐ TCEQ 10653-02 TX0047988 Southside Plant
☐ TCEQ 10653-01 TX0047996 Westside Plant

**TCEQ Region: 5-Tyler** **County: Smith**

## Noncompliance Summary

**Description of Noncompliance (include location, discharge route, and estimated volume of unauthorized discharge):**

**Cause of Noncompliance:**

**Duration:** **Start Date and Time:** **End Date and Time:**
**Or Date Expected to be Corrected:**

**Potential Danger to Human Health and Safety or the Environment:**

## Actions Taken

**Monitoring Data: Data should be attached or submitted to TCEQ when available.**

☐ Yes ☐ No Field Measurements
☐ Yes ☐ No Laboratory Samples
☐ Yes ☐ No Fish Kill If yes, estimated number killed:

**Actions Taken to Mitigate Adverse Effects:**

**Actions Taken to Correct the Problem and Prevent Recurrence:**

**Information Reported by (Name/Title):**

## Verification Information

**Information Reported By (Name/Title):** _____

**Date/Time Reported via Phone:** _____ **To Whom: Lisa Fisher 903-535-5137**

**Date Faxed (903-525-0384) to TCEQ Region 5:** _____**Date Mailed to TCEQ MC224:**_____

**Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.**

*** If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied. If you are uncertain of this permit number, you may call the TCEQ Regional Office for assistance.**

# Guidance - Water Quality Noncompliance Notification Form

When reporting an unauthorized discharge or sanitary sewer overflow (SSO), it is important to include all information that is requested on the notification form. If you have questions about the form, do not hesitate to call your TCEQ Regional Office and ask to speak to a wastewater investigator. All information should comply with reporting requirements noted in Texas Water Code Section 26.039, 30 Texas Administrative Code (TAC) Section 305.125(9), and, if applicable, 30 TAC Section 319.302(b).

This form may be used as the 24-hour notification to the Regional Office and may also be used as the 5-day written report. If the event was reported within 24 hours via phone, or an incomplete form was submitted as part of the 24-hour reporting requirement, you must fax or mail a completed, signed copy within 5 days to the Water Section Manager at your TCEQ Regional Office. The original, signed copy should be mailed to the address located at the bottom of the form.

**Unauthorized Discharge -** An unauthorized discharge is any discharge of wastewater into or adjacent to waters in the state at a location not permitted as an outfall. An SSO is any overflow, regardless of volume, from a sewer collection system (i.e., lift stations, manholes, force mains, cleanouts, service lines). An SSO is considered to be an **"unauthorized discharge."**

## General Information

**"Entity name"** is your permitted name (owner name for subscriber systems). Designate with an "X" or "✓" to identify whether you are a permittee or subscriber.

**Permit Number -** Include your TCEQ WQ permit number (i.e., WQ0012345001). If you are a **subscriber,** use the permit number of the treatment plant to which the collection system is tied. If the WQ permit is unknown, please call the TCEQ Regional Office for assistance.

## Noncompliance Summary

**Description of Noncompliance:**

- Location & collection system structure (i.e., Manhole at 650 Main St.)
- Route of discharge – Follow the discharge from its origin to where it was contained or entered a receiving waterway. If the receiving waterway is unnamed, provide the name of the nearest named adjoining waterway. (Examples: soaked into ground; manhole → nearby storm ditch → unnamed tributary of Kings Creek)
- Estimated amount of the discharge (includes any recovered amount)

**Cause of Noncompliance:** Why did this incident occur? Was it caused by grease, blockage, infiltration or inflow, equipment failure, structural failure, power outage, vandalism, human error, contractor, unknown?

**Duration:** Include dates and times.

**Potential Danger to Human Health & Safety or the Environment:** Any danger to the aforementioned should be promptly discussed with the TCEQ Regional Office. Additional notifications may be necessary.

## Actions Taken

**Monitoring Data:** Designate with an "X" or "✓."

**Actions taken to Mitigate Adverse Effects:** Ask yourself, "How did we keep this from becoming an environmental or health problem?" Include information such as:

- amount recovered from the total estimated amount stated under the description above
- method used to recover the wastewater
- treatments used for disinfection or deodorizing
- activities to lessen impact to property, a waterway, or public health

**Actions taken to correct the problem and prevent recurrence:** Ask yourself, "How did we address the direct cause of the overflow, and was there anything else we did to prevent this noncompliance from occurring again?" Include actions such as:

- jetting the main
- educating residents about proper grease disposal
- adding the location to your preventative maintenance list
- repairing equipment, circuits, or replacing lines, etc.

## Verification Information

**Information Reported By:** Include both your name and title. Please sign and date the form.

# Accidental Discharge or Spill Monthly Summary Form

*See back of form for guidance for completion*

**General Information:**

Permittee: ☒ Subscriber: ☐

Regulated Entity Name: City of Tyler 903-531-1285 EPA ID No: Click here to enter text.

Regulated Entity No: Click here to enter text. TCEQ Region: Region 5 - Tyler

Permit No: ☐ TCEQ 10653-02 TX0047988 Southside Plant County: Smith

☐ TCEQ 10653-01 TX0047996 Westside Plant

| Start Date<br>Start Time | End Date<br>End Time | Volume (gallons) | Location | Cause | Steps taken to reduce, eliminate, and prevent recurrence | Description/Content | Standard Method for Volume Calculation |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Information Reported by (Name/Title) Kevin Olson/Operations Manager Signature:_____

Date Reported_____ FAX to 903-525-0384 Attn: Lisa Fisher Mailed to Austin: ___/___/_____



Note: A copy of this form should be sent to your TCEQ Regional Office no later than the 20th day of the following month and the original to the TCEQ Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087

*If the accidental spill or discharge occurs at a Subscriber system (collection system only), use the RN associated to the collection system. If you are uncertain of your RN, you may call the TCEQ Regional Office for assistance.

When reporting an accidental or unauthorized discharge or spill, it is important to include all information that is requested on the notification form. If you have questions about the form, do not hesitate to call your TCEQ Regional Office and ask to speak to a wastewater investigator. All information should comply with reporting requirements noted in Texas Water Code Section 26.039, 30 Texas Administrative Code (TAC) Section 305.132, and, if applicable, 30 TAC Section 327.32.

This form may be used in lieu of 24-hour notification to the Regional Office when the accidental or unauthorized discharge or spill meets the requirements in 30 TAC 305.132 and 30 TAC 327.32. You must fax or mail a completed, signed copy within 20 days of the following month to the Water Section Manager at your TCEQ Regional Office. The original, signed copy should be mailed to the address located at the bottom of the form.

## General Information

Entity name - permitted name or owner name for subscriber systems.

Permit Number – Your TCEQ WQ permit number (i.e., WQ0012345001). If you are a subscriber, use the RN to which the collection system is associated. If the RN is unknown, please call the TCEQ Regional Office for assistance.

## Noncompliance Summary

Volume – volume must be estimated by the one of the four methods outlined in 30 TAC

Location – include address or latitude and longitude coordinates

Cause –

Potential field cause(s) of release:

- Fats, Oils, Grease
- Flooding
- Roots
- Excess Infiltration/Inflow
- Debris
- Contractor Damage
- Breaks Due to Erosion
- Vandalism
- Breaks, Other Causes
- Undetermined
- Equipment malfunction
- Other: _____

Steps taken reduce, eliminate or prevent recurrence – List all steps taken to ensure no further reoccurrences

Description/content – a description of the events that lead to the spill including the contents of the spill and actions taken to clean

Standard Method – name the method you used to estimate the volume

## APPENDIX 2

## LIFT STATION POWER OUTAGE PLAN/ SSO SOP

The Lift Station Power Outage Response Plan provides specific details on procedures associated with each lift station outage. The Lift Station plan is used as guidance in minimizing the impact of power outages or other lift station failures.

Lift Station Response Plan

## Introduction

The City of Tyler (City) recognizes the importance of the regular and proper operation of its wastewater lift stations to properly convey wastewater for the protection of the environment and to safeguard public health and safety. Historically, a lift station failure is a very rare occurrence, however, a failure of a lift station may result in customer service being disrupted and may result in a Sanitary Sewer Overflow (SSO) if it takes an extended period of time to return the lift station to service. A failure may result from a power outage, mechanical failure, lift station control failure, pump blockage, vandalism, severe storm damage, and so on. For these reasons the City has developed this Lift Station Response Plan (LSRP) to document lift station monitoring and response procedures to address such events and to minimize the impact on customers and the environment.

This LSRP provides a summary of the staffing and equipment available to continue the proper operation and maintenance of the City's lift stations. Additionally, it includes the specific details of the activities and procedures that personnel follow during an event that does not fall within the normal operation and maintenance of a lift station.

## Organizational Hierarchy and Responsibilities

The Water Quality Manager is ultimately responsible for the lift station response plan elements within TWU.

Specifically for lift stations, the Water Quality Manager oversees the dedicated crews responsible for operation and maintenance of the lift stations including the response to failures. City crews routinely visit each lift station on a daily basis. The Plant Mechanics are responsible for troubleshooting any identified failure and performing the remedial measures necessary to resolve the failure event. Additional staff is engaged on an as-needed basis as determined by the staff on site.

## Alarms and Response Procedures

For every lift station, the City monitors the following four (4) events:

- Main Power Failure
- Control Power Failure
- High Water Level In Wetwell

When any of these events are detected, a signal is transmitted to notify staff of a potential failure. When an alarm is received and verified, crews are dispatched to resolve the issue. The SSO Overflow Response Plan Manual details procedures used to address those situations where an SSO occurs as a result of a lift station failure. Upon receipt of an alarm, the plant mechanic will proceed to the lift station and each crew will initiate troubleshooting procedures (Table 1, Attachment A) to identify if the failure is electrical, mechanical or blockage in origin.

For an observed lift station failure, the following actions will be taken:

1. If Power is Available:
    a. Check electrical meter is turning to confirm power at station
    b. Check electrical panel to ensure main switch is engaged and system is in auto mode of operation
    c. Confirm problem still exists if operated in manual mode
    d. Confirm circuit breakers have not tripped
    e. Confirm pumps are operating
    f. Check wet well to ensure level is moving
    g. Observe pump check valve to determine if it is opening normally
    h. Check if each individual pump is operating or if none of the pumps are operating
2. If Power is Not Available:
    a. Start backup generator power system per manufacturer's procedures or initiate delivery of portable pumps.
    b. Review Power Outage Plan for specific lift station and review retention time before SSO is likely
    c. Obtain supplemental crews (electrical and mechanical) if needed
    d. Initiate delivery of appropriate backup portable generator, portable pumps, or vacuum/vactor vehicles based on specific response plan for the specific lift station

In the event of a force main leak or failure, the following actions will be taken:

1. The leaking force main will be isolated or bypassed if the retention time does not offer enough time to make repairs to the pipeline.
2. City personnel or outside contractor (depending on the damage, location, depth of pipeline, etc.) will complete repairs to the force main.
3. Where alternate force mains are available, valves will be adjusted to bypass the failed force main or divert as much flow from the failed force main as possible.
4. Containment of any SSO and cleanup will follow the procedures in the SSO Response Plan Manual.

In the event of multiple, simultaneous alarms, staff prioritize the lift stations based on likely time to overflow and dispatches crews accordingly. If necessary, additional crews are engaged and dispatched to resolve the issues.

**Response Equipment List and Location**

Various equipment is available to the staff to respond to lift station alarms. The specific equipment to be used to resolve an event will depend on the cause and existing lift station configuration. Equipment and other options available for lift station outages include, but is not limited to:

1. On-site backup generators
2. Portable backup generators having installed power transfer switches
3. Portable pumps and quick connect fittings

4. Vacuum/Vactor vehicles to pump and truck wastewater during outage
5. Engagement of local Equipment Vendors and Service Providers
6. Support from adjacent jurisdictions via Mutual Aid Agreements

Portable equipment is stored at the Water Service Center or available from local suppliers. The equipment that City staff will utilize depends on the nature of the outage and the lift station configuration. The requisite time for crews to implement alternative flow control measures or restore lift station service before the outage results in an SSO varies from lift station to lift station and is dependent upon one or more factors including, but not limited to, incoming flow volumes, storage volume within the system, upstream diversion(s) and control(s), and flow by-pass capabilities. Crews are instructed to monitor the flow at the location where flow is most likely to escape the system based on elevations and hydraulic grade lines. By observing flow elevations at the designated point, response crews can adjust their response as necessary to prevent an SSO.

**Training and Safety**

Appropriate staff will participate in regularly scheduled training sessions to assist response crews in awareness of their responsibilities in executing their duties in a safe and effective manner. These training sessions will be organized based on the latest SSORP and LSRP, as well as other pertinent reference materials. Training sessions will also incorporate hands-on field demonstrations to ensure the preparedness of all response personnel for anticipated situations. Field demonstrations will be performed to test equipment, response time, training effectiveness, and manpower capabilities.

Training and event participation will be documented and maintained by the City. City staff is encouraged to receive training through various industry associations and to participate in City-provided lift station and collection system training.

**LSRP Availability and Updates**

The City will routinely review, evaluate and update the effectiveness of this LSRP as appropriate. The LSRP will be amended as necessary to reflect changes in facilities or changes in operations or maintenance procedures that may materially affect the potential for SSOs related to the lift stations. As policies change and response procedures are refined, the LSRP will be reviewed and modified to reflect all necessary changes. The City may also review and recommend modifications as appropriate after any SSO occurrence.

The City will maintain the master copy of this LSRP and amendments at the City's operations yard and, upon request, be made available to the public for review. Copies will be distributed to appropriate staff, City Departments and regulatory agencies as necessary. Copies, or portions of this document as appropriate, will be kept in response vehicles and at designated lift stations.

# ATTACHMENT A

# LIFT STATION TROUBLESHOOTING GUIDE

Table 1 Troubleshooting Pump Stations

The following chart provides some typical problems associated with pumping stations and possible solutions.

**Troubleshooting Guide**
**Raw Sewage Pump Stations**

| Indications/ Observations | Probable Cause | Check or Monitor | Solutions |
|---|---|---|---|
| 1. Black and odorous septic wastewater. | 1a. Improper operation of lift station.<br>1b. Flat grades in collection system. | 1a. Inspect lift station.<br>1b. Check velocity in collecting lines. | 1a. Repair lift station.<br>1b. Flushing program to maintain correct velocities. |
| 2. Intermittent flow or surging. | 2a. Improper wet well sensor adjustment.<br>2b. Hydraulic capacity of station is exceeded.<br>2c. Illegal connections to the system. | 2a. Check sensor adjustment.<br>2b. Check designed capacity.<br>2c. Check sanitary sewer system to determine the source. | 2a. Adjust level sensors.<br>2b. Install surge tank.<br>2c. Remove and prevent illegal connections. |
| 3. Intermittent flow or surging during heavy rainfall. | 3a. Flooded streets and water entering through manholes.<br>3b. Broken lines. | 3a. Check seals on manholes.<br>3b. Inspect for broken lines. | 3a. Seal manholes and repair cracks in manhole structures.<br>3b. Repair broken lines. |
| 4. Pump not running. | 4a. Defective control circuit.<br>4b. Defective motor. | 4a. Use a meter to check switching circuits.<br>4b. Check motor operation. | 4a. Replace defective part.<br>4b. Replace motor |
| 5. Pump not running, circuit breaker will not reset. | 5a. Clogged pump or closed valve. | 5a. Inspect pump for obstruction. | 5a. Remove obstruction. |
| 6. Pump is running, but reduced discharge. | 6a. Pump air-bound.<br>6b. Clogged impeller.<br>6c. Wearing rings. | 6a. Air bleed pipe.<br>6b. Inspect for obstructions.<br>6c. Check clearance. | 6a. Remove obstruction.<br>6b. Remove obstruction.<br>6c. Replace worn rings. |
| 7. Clogged pump or pump suction line. | 7a. Grease accumulations. | 7a. Check grease accumulation on walls of wet well. | 7a. Frequent cleaning of wet well or removal of grease by dewatering the well, and scraping the bottom. |
| 8. Rising power consumption per gallon. | 8a. Clogged pump.<br>8b. Misaligned belt drives. | 8a. Total daily pumpage and maximum minimum flow rates.<br>8b. Check alignment. | 8a. Remove obstruction in pump.<br>8b. Realign belt drive. |
| 9. Improper liquid levels. | 9a. Coating on liquid high probes.<br>9b. Hang-ups in float level detectors.<br>9c. Leaks in bladders.<br>9d. Fouling in bubbler controls. | 9a. Check probe.<br>9b. Float detector.<br>9c. Check bladder.<br>9d. Check Bubbler. | 9a. Clean probe.<br>9b. Remove obstruction, release float.<br>9c. Repair or replace bladder.<br>9d. Clean bubbler. |
| 10. Excessive wear or damage to pumps. | 10a. Sand accumulations in wet well.<br>10b. Grease accumulations in the wet well. | 10a. Inspect for eroding action, corrosion, and solids build up.<br>10b. Inspect wet well walls. | 10a. Remove sand from wet well.<br>10b. Clean wet well. (see 4a. Solution) |

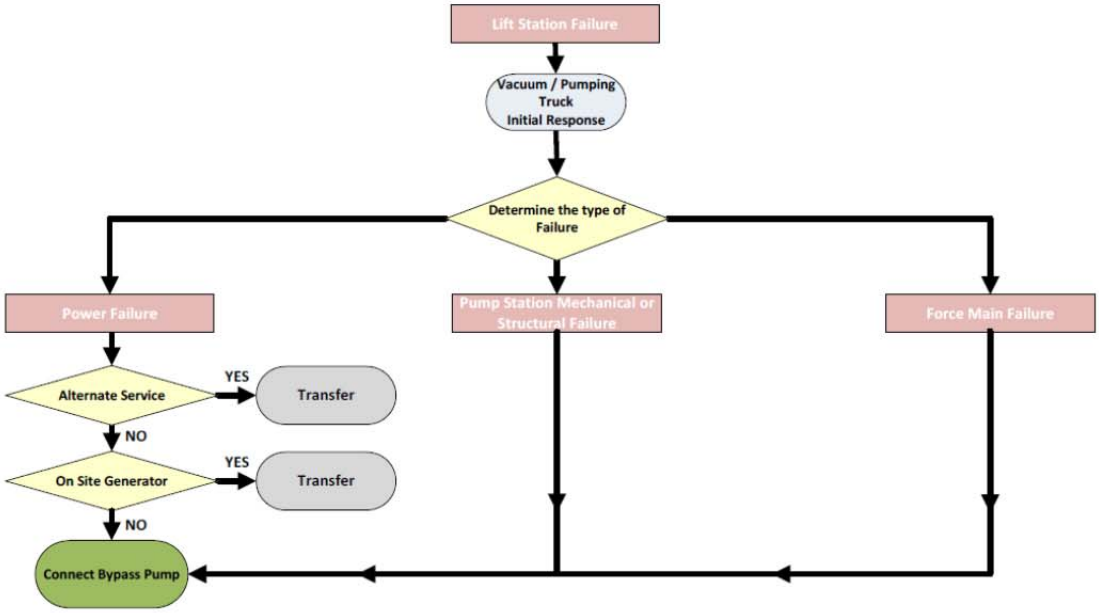
Table 1 Troubleshooting Guide Continued

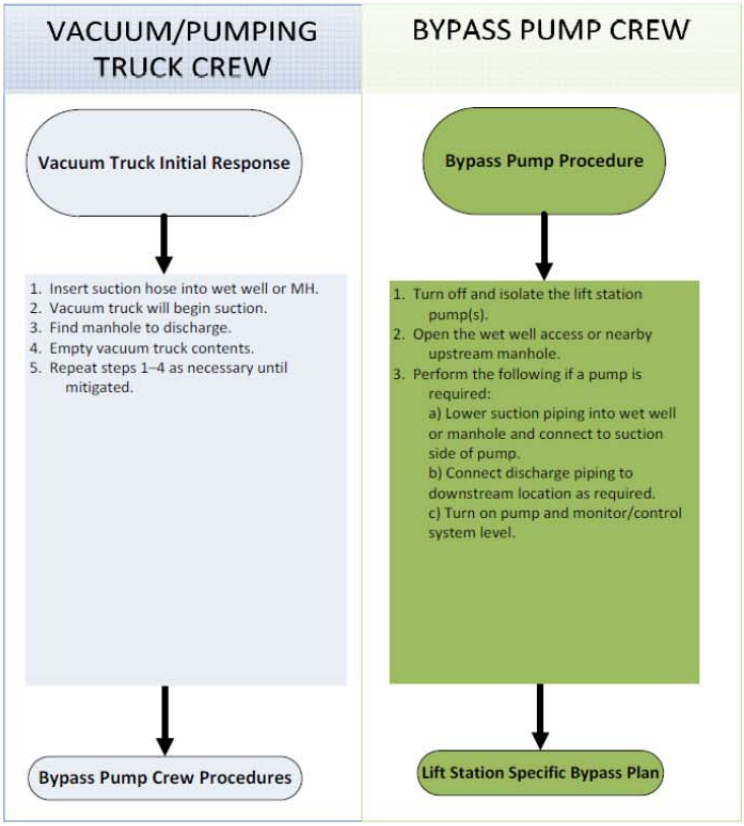
| Pump Stations | | |
|---|---|---|
| **Cause** | **Diagnostic Tools** | **Actions to Prevent Future Occurrences** |
| Primary power failure | Engineering evaluation support<br>Contact Power Company | Arrange "2nd source power from Power Company" or quick connect for portable generator or portable pumps |
| Standby power failure | Engineering evaluation support<br>Check pump station status | Make repair; periodic load bank testing; exercise equipment weekly; increase preventive maintenance (PM) |
| Pump/drive failure | Engineering evaluation support<br>Check pump station status | Make repair; increase preventive maintenance; keep portable pumping available nearby; consider unit replacement or rehab |
| Force main failure | Engineering evaluation support<br>Inspect right-of-way/easement | Make point repair; inspect interior main walls upstream and downstream of repair; consider replacement of line; assess need for corrosion control. |
| Equipment controls/switch gear failure | | Make repair; increase preventive maintenance |
| Hydraulic capacity limit | Engineering evaluation support<br>Temporary flow monitoring | Perform pump test; check test curves against design criteria and actual flows; temporarily escalate wastewater minimization practices in tributary area in interim until capital improvements are made; supply portable pump to augment capacity |
| Vandalism | Check pump station status | Coordinate with police for increased patrolling of area; make less accessible with fencing; fortify vault and door security; alarm and enhance outdoor lighting |

## ATTACHMENT B

## LIFT STATION RESPONSE PLAN PROCESS

# Standard Operating Procedure for Lift Station Failure




| VACUUM/PUMPING TRUCK DATA | |
|---|---|
| City Truck Capacity | 2,400 gal |
| Commercial Truck Capacity | 5,000 – 6,000 gal |

# APPENDIX 3

## EMERGENCY CONTACT INFORMATION

# Emergency Telephone Numbers

| Emergency Phone Numbers | | | Primary Number | Secondary Number |
|---|---|---|---|---|
| Managing Director, Utilities and Public Works | | | TBD | |
| Director of Utilities | | | TBD | |
| Utilities Engineer | Lisa Crossman | lcrossman@tylertexas.com | 903-531-1239 | 903-920-8066 |
| Environmental Compliance Engineer | Kate Dietz | kdietz@tylertexas.com | 903-531-1085 | |
| Operations Manager | Kevin Olson | kolson@tylertexas.com | 903-531-1285 | |
| Manager, Water Quality | Mike Norris | mnorris@tylertexas.com | 903-939-8278 | |
| Senior Utility Specialist | Pam Lee | plee@tylertexas.com | 903-531-1238 | |
| After Hours Emergency | Golden Road Water Treatment Plant | | 903-597-6541 | |
| Water Line Break, Sewer Stoppage –Service Center | | | 903-531-1285 | |
| Environmental Health Department (NetHealth) | | | 903-535-0037 | |
| City Manager | Edward Broussard | | 903-531-1250 | |
| Communications Director | Julie Goodgame | jgoodgame@tylertexas.com | 903-531-1272 | 903-245-5377 |
| City Engineer | Carter Delleney | cdelleney@tylertexas.com | 903-531-1134 | 903-258-3690 |
| Stormwater | Robin Smart | rsmart@tylertexas.com | 903-531-1393 | 903-520-3657 |
| Traffic | Peter Eng | peng@tylertexas.com | 903-531-1204 | |
| Risk Management | Sara McCracken | smccracken@tylertexas.com | 903-531-1149 | |
| Utility Locates | Service Center | | 903-531-1285 | |
| Power Company: | Oncor Electric Delivery | | 911 | 888-313-4747 |
| Gas Company: | CenterPoint Energy | | 911 | 800-259-5540 |
| Police Department: | | | 911 | 903- 531-1000 |
| State Hwy Patrol: | | | 903-939-6000 | |
| Federal Bureau of Investigation: | | | 903-592-4301 | |
| Fire Department/ Ambulance Service: | | | 911 | |
| Texas Emergency Management Agency: | | | (512) 424-2208 | (512) 424-2208 |

**TCEQ Region 5**
**Telephone: Lisa Fisher**

**TEL: 903-535-5137**
**FAX: 903-525-0384**

TCEQ Region 5, Tyler
TCEQ Regional Office
Attn: Lisa Fisher
2916 Teague Drive
Tyler, TX 75701-3734
Tel: 903-535-5137
Fax: 903-525-0384

TCEQ Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

**Parks & Wildlife**: 24 Hour Communication Center 512-389-4848
Tyler District Office: Greg Conley 903-566-2518

**Region 6 EPA**: **24 Hour Number: 214-665-6595**

United States Environmental Protection Agency
Region VI, 1455 Ross Avenue
Dallas, Texas 75201
Attn: Water Enforcer

# City Departments

| Category | Location | Telephone |
|---|---|---|
| Airport | 700 Skyway Blvd., Suite 201 | (903) 531-2343 |
| Animal Services | 4218 Chandler Hwy | (903) 535-0045 |
| Building Services | 423 W. Ferguson St. | (903) 531-1151 |
| City Clerk | 212 N. Bonner | (903) 531-1106 |
| City Manager's Office | 212 N. Bonner Ave. | (903) 531-1250 |
| City University | 212 N. Border Ave. | (903) 595-7172 |
| Code Enforcement | P.O. Box 2039 | (903)531-1312 |
| Communications | 212 N. Bonner Ave. | (903) 531-1272 |
| Development Services | 423 W Ferguson St. | (903)531-1171 |
| Engineering Services | 423 W Ferguson | (903)531-1126 |
| Finance Department | 304 N Border Ave. | 903-531-1138 |
| Fire Department | 1718 W. Houston | (903) 535-0005 |
| GIS | 511 W Locust St | (903) 531-1241 |
| Historic Preservation | 423 W. Ferguson | (903) 531-1175 |
| Human Resources | 212 N Bonner | (903)531-1100 |
| Information Technology | 212 N. Bonner | (903) 531-1119 |
| Lean Six Sigma/ City University/ Performance Excellence | 212 N. Border Ave. | 903-595-7172 |
| Legal | 212 N. Bonner | 903-531-1161 |
| Liberty Hall | 103 E. Erwin St. | (903) 595-7274 |
| Library | 201 S. College Ave. | (903) 593-7323 |
| Main Street | 110 W. Erwin | (903) 593-6905 |
| Municipal Court | 813 N. Broadway | (903)531-1266 |
| Neighborhood Services | 900 West Gentry Parkway | 903-531-1303 |
| Parks & Recreation | 2000 W. Front St. | 903-531-1370 |
| Planning | 423 W. Ferguson | (903)531-1175 |
| Police Department | 711 W. Ferguson | (903) 531-1090 |
| Purchasing | 511 W. Locust | 903-531-1232 |
| Risk Management | 212 N Bonner | (903)531-1104 |
| Solid Waste | 414 N. Bois D'Arc Ave. | (903)531-1388 |
| Stormwater Management Program | 511 W. Locust Street | 903-531-1085 |
| Streets Department | 3305 Frankston Hwy | (903)531-1393 |
| Traffic Engineering | 423 W. Ferguson | (903)531-1201 |
| Tyler Area Metropolitan Planning Organization | 423 W. Ferguson | 903-531-1175 |
| Tyler Transit | 210 East Oakwood | 903-533-8057 |
| Tyler TV 3 | 212 N. Bonner | (903) 595-7172 |
| Tyler Water Utilities | 511 West Locust | 903-531-1238 |
| Vehicle Services | 410 W. Oakwood | (903)531-1321 |
| Volunteer Services | 212 N. Bonner Ave. | (903) 531-1100 |
| Water Production and Water Quality | 14792 CR 192 | 903-939-2724 |

# APPENDIX 4
# SITE DISINFECTION AND SSO QUANTIFICATION

# Texas Administrative Code

| | |
|---|---|
| TITLE 30 | ENVIRONMENTAL QUALITY |
| PART 1 | TEXAS COMMISSION ON ENVIRONMENTAL QUALITY |
| CHAPTER 327 | SPILL PREVENTION AND CONTROL |
| RULE §327.32 | Reporting Requirements for Certain Accidental Discharges or Spills of Treated or Untreated Wastewater at Wastewater Treatment Facilities or Collection Systems |

---

(a) The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Collection system--Pipes, conduits, lift stations, force mains, and all other constructions, devices, and appurtenant appliances used to transport domestic wastewater to a wastewater treatment facility.

(2) History of noncompliance--History of non-reporting or reoccurrences of accidental discharges or spills of treated or untreated wastewater.

(3) Local government--An incorporated city, a county, a river authority, or a water district or authority acting under Article III, Section 52, or Article XVI, Section 59 of the Texas Constitution.

(4) Wastewater treatment facility--All contiguous land and fixtures, structures, and appurtenances used for storing, processing, and treating wastewater. A wastewater treatment facility does not include the collection system located outside of the fenced area around a wastewater treatment facility.

(b) Except as provided by subsection (c) of this section, all accidental discharges or spills of treated or untreated wastewater shall be reported within 24 hours of the occurrence. A written submission shall be provided to the executive director within five days of the occurrence. The written submission shall contain a description of the accidental discharge or spill and its cause; the potential danger to human health or safety, or the environment; the duration of the accidental discharge or spill, including exact dates and times; if the cause of the accidental discharge or spill has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence, and to mitigate its adverse effects.

(c) The responsible person of a wastewater treatment facility or collection system that is owned or operated by a local government may report accidental discharges or spills of treated or untreated wastewater that do not endanger human health or safety or the environment to the executive director as a monthly summary if each individual accidental discharge or spill:

(1) has a volume of 1,000 gallons or less;

(2) is not associated with another simultaneous accidental discharge or spill of treated or untreated wastewater;

(3) is controlled or removed before the accidental discharge or spill enters water in the state or adversely affects a public or private source of drinking water; and

(4) is not otherwise subject to local regulatory control and reporting requirements.

(d) The responsible person shall submit a monthly summary by the 20th day of the month for each accidental discharge or spill that occurred during the previous month. The summary must

include, at a minimum, the:

(1) location, volume and content of the accidental discharge or spill;
(2) description of the accidental discharge or spill;
(3) cause of the accidental discharge or spill;
(4) dates and times of the accidental discharge or spill; and
(5) steps taken to reduce, eliminate, and prevent recurrence of the accidental discharge or spill.

(e) The responsible person must use one of the following methods for determining the volume of the discharge or spill.

(1) Visual estimate. If the accidental discharge or spill is less than 55 gallons, using a standard five-gallon bucket for reference, estimate the number of buckets that the discharge or spill would fill then multiply by five to obtain the number of gallons discharged or spilled. If the accidental discharge or spill is larger than 55 gallons, using a standard 55 gallon barrel for reference, estimate the number of barrels that the discharge or spill would fill and then multiply by 55 to obtain the number of gallons discharged or spilled.
(2) Measured volume. Identify the length, width, and depth of the contained accidental discharge or spill in feet and calculate the volume by multiplying length by width by depth by 7.5 (the conversion factor from cubic feet to gallons).
(3) Duration and flow rate. Identify separate estimates for the duration and the flow rate of the accidental discharge or spill. The estimated volume is calculated by multiplying the duration (hours or days) by the flow rate (gallons/hour or gallons/day).
(4) Other methods. The responsible person may use other volumetric calculation methodologies rather than those listed in paragraphs (1) - (3) of this subsection, so long as such methodologies include procedures to identify a duration, flow rate, depth, affected area, and total quantity of each spill (including, as appropriate, reference to estimation tools such as barrels, for example), and such methodology is consistent with standard and accepted industry practices. Such alternative methodologies must be identified in the responsible person's monthly report.

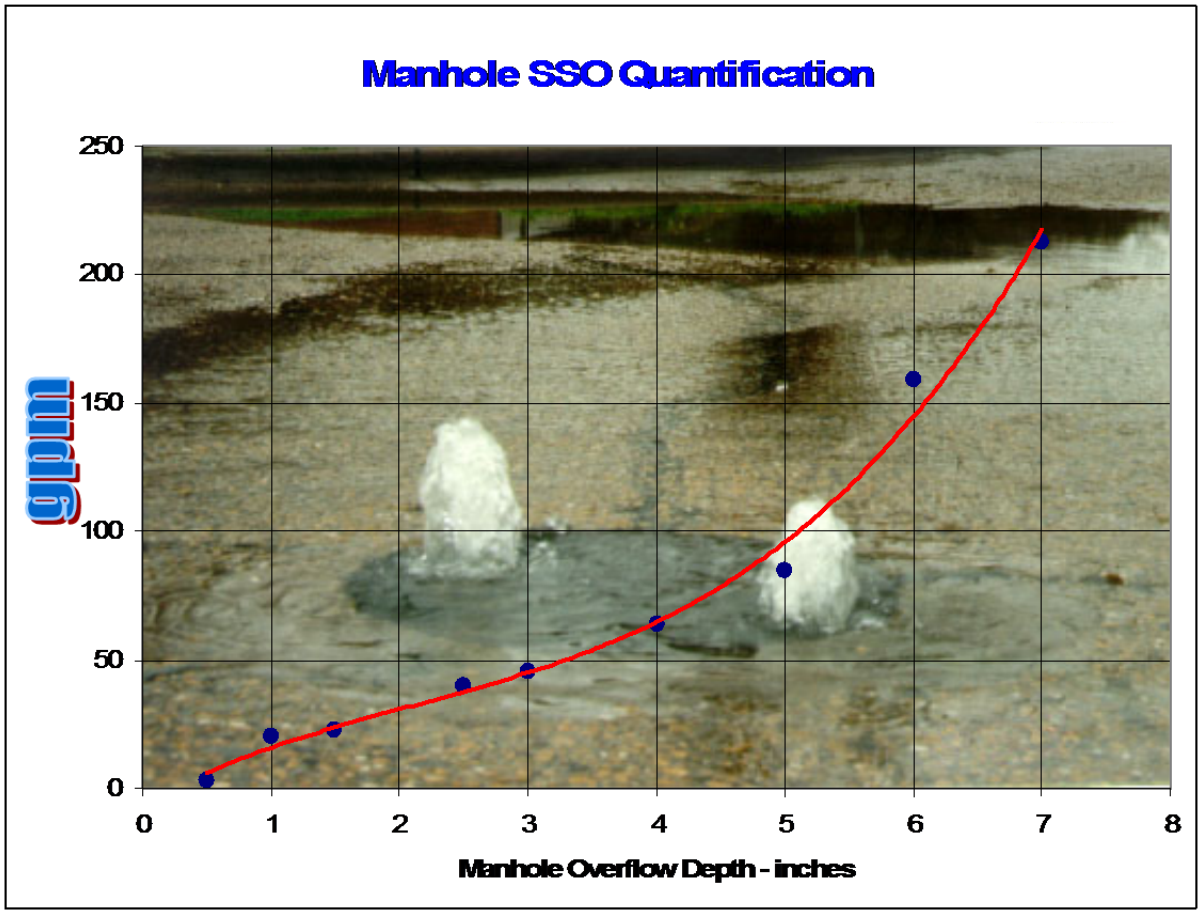
(f) The responsible person must keep records of all accidental discharges or spills of treated or untreated wastewater reported under this section. The records must remain on-site for three years and be made immediately available to commission staff upon request.

(g) The executive director may require more frequent reporting based on the responsible person's history of noncompliance.

---

**Source Note:** The provisions of this §327.32 adopted to be effective June 2, 2016, 41 TexReg 3914

# Estimating
# Sanitary Sewer Overflow Volume
# and HTH Disinfection Requirement




Volume of SSO = length x width x depth x 7.48 = gallons

Spill area = 20 feet by 30 feet = 600 sq.ft.

Depth of spill = 3 inches = 0.25 feet

Volume = 20 x 30 x 0.25 x 7.48 =1,122 gallons

Disinfection with HTH = 12 ounces per 100 square feet

Area = 600 sq.ft.

HTH = 600/100 x 12 ounces = 6 x 12 = 72 ounces of HTH (or 4.5 lbs)

**CAUTION: EXCESSIVE USE OF HTH CHLORINE CAN CAUSE FISH KILL OR OTHER NEGATIVE IMPACTS TO THE ENVIRONMENT.**

# Spill Documentation and Spill Volume Calculation Guidance
# Source: City of San Diego

**SANITARY SEWER FLOW RATES FOR SPILL DETERMINATIONS**

| Depth of Flow (inches) | Pipe Size | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 6 | 8 | 10 | 12 | 15 | 18 | 21 | 24 | 30 |
| 1 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 100 |
| 2 | 50 | 60 | 70 | 80 | 85 | 95 | 105 | 125 | 145 |
| 3 | 90 | 110 | 125 | 135 | 150 | 175 | 185 | 210 | 230 |
| 4 | 125 | 160 | 180 | 200 | 235 | 260 | 285 | 320 | 350 |
| 5 | 155 | 190 | 240 | 280 | 315 | 360 | 380 | 445 | 470 |
| 6 | 180 | 260 | 310 | 355 | 415 | 455 | 500 | 555 | 630 |
| 7 | | 290 | 370 | 425 | 495 | 570 | 620 | 695 | 770 |
| 8 | | 320 | 430 | 500 | 600 | 680 | 760 | 815 | 1010 |
| 9 | | | 465 | 575 | 690 | 800 | 890 | 965 | 1260 |
| 10 | | | 490 | 625 | 775 | 905 | 1005 | 1120 | 1360 |
| 11 | | | | 685 | 870 | 1020 | 1135 | 1275 | 1490 |
| 12 | | | | 715 | 935 | 1130 | 1260 | 1410 | 1630 |
| 13 | | | | | 1020 | 1240 | 1415 | 1580 | 1870 |
| 14 | | | | | 1070 | 1345 | 1520 | 1690 | 2110 |
| 15 | | | | | 1105 | 1425 | 1650 | 1850 | 2220 |
| 16 | | | | | | 1495 | 1760 | 1990 | 2560 |
| 17 | | | | | | 1550 | 1880 | 2110 | 2730 |
| 18 | | | | | | 1595 | 1980 | 2285 | 2940 |
| 19 | | | | | | | 2050 | 2410 | 3100 |
| 20 | | | | | | | 2115 | 2530 | 3330 |
| 21 | | | | | | | 2160 | 2630 | 3510 |
| 22 | | | | | | | | 2700 | 3780 |
| 23 | | | | | | | | 2765 | 3900 |
| 24 | | | | | | | | 2820 | 4040 |
| | | | | | | | | | 4130 |
| | | | | | | | | | 4200 |
| | | | | | | | | | 4250 |
| | | | | | | | | | 4320 |
| | | | | | | | | | 4370 |
| | | | | | | | | | 4400 |

**Gallons per Minute @ V=2.0 feet per second (ft/sec) and n=0.013; Adjust accordingly for flat or steep sloped sewers.**

**Exhibit D-2**


Wastewater Collection Division
(619) 654-4160
Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes
All estimates are calculated in gallons per minute (gpm)
City of San Diego
Metropolitan Wastewater Department
5 gpm
25 gpm
50 gpm
100 gpm
150 gpm
200 gpm
225 gpm
250 gpm
275 gpm
All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.
rev. 4/99

### D.2.2.B Volume of SSO at Manhole

Length x Width x Depth x 7.48 = gallons
Spill area = 20 feet by 30 feet = 600 sq. ft.
Depths of spill = 3 inches = 0.25 feet
Volume = 20 x 30 x 0.25 x 7.48 = 1,122 gallons

## D.2.3 WET WEATHER OVERFLOW CALCULATION:

The following can be used to help in estimating the rate of loss of flow out of manholes. As this is an estimate, judgment by the observing person and/or estimator must always be used.

All calculations are based on an estimate of the size of the opening involved, the velocity of flow through the opening, and the duration of time the overflow occurred. In most all occurrences, the opening size and velocity will change over an event from low to high back to low. Judgment on an average condition must thus be attempted to reach a realistic rate of loss.

### D.2.3.A. Loss through vent holes

1. Size of opening:
   Assume holes at 1- inch diameter

   Area = (number of holes) ($\pi$) ($D^2/4$) ($1ft^2/144$)
   Area = (number of holes) (3.14) (1/4) (1/144)

   Area = (number of holes) ($0.0055ft^2$/hole)

2. Velocity Plume Guide

   Velocity through holes, based on Velocity Head = ($Velocity^2/2g$)

| Plume height | Velocity |
|---|---|
| 1-inch | 2.0 ft/sec |
| 2-inch | 3.3 ft/sec |
| 3-inch | 4.0 ft/sec |
| 4-inch | 4.6 ft/sec |
| 5-inch | 5.2 ft/sec |
| 6-inch | 5.7 ft/sec |

3. Time = convert to minutes

Volume (Gal.) = (Area) (Velocity) (Time) (448 gpm/cfs)

*Example:* Top with six hole, flow through holes makes a one-inch high plume, last for 4 hours, 15 minutes

Volume = (6 holes x 0.0055 ft²/hole) (2ft/sec) (255 min) (448 gpm/cfs)
Volume = (0.033) (2) (255) (448) = 7540 gallons

**D.2.3.B. Loss around edge of non-vented cover**

1. Size of opening:

As the weight of manhole lid will generally hold it in place until internal pressures exceed 0.4 pounds/sq. in., loss occurs through imperfections, grit, etc. between the lid and manhole frame. Observations are generally a vertical ring of water from side gap between the lid and frame of approximately ¼ inch width.

Area = (π) (D) (¼ inch) (1/12 in/ft)
= (3.14) (2ft) (1/4) (1/12)

Area = 0.131 ft²

2. Velocity through gap
(see vertical plume guide above, D.3.A.2.)

3. Time – convert to minutes

*Example:* Manhole with 4-inch plume around edge for 2 hours, 15 minutes

Volume (Gal.) = (Area) (Velocity) (Time) (448 gpm/cfs)
= (0.131 ft²) (4.6 ft/sec) (135) (448)
= 36,445 gallons

**D.2.3.C. Loss from tilted cover**

1. Size of opening:

Some estimate has to be made in the field concerning how much gap exists in order to do this calculation. For the following amounts of lift of one side, the areas are as follows:

A = (π) (D) (in of lift) (1/12 ft/in) (1/2)
A = (3.14) (2ft) (in. of lift) (1/12) (1/2)
A = 0.262 (in. of lift)

| Lift (inches) | Area (ft²) |
|---|---|
| 1 | 0.262 |
| 2 | 0.524 |
| 3 | 0.786 |
| 4 | 1.048 |

2. Velocity through opening

This must be estimated from visual observation. A low rate would be 2/ft/sec, moderate rate at 4 to 5 ft/sec, high rates up to 7 ft/sec. Over 7 ft/sec, the lid will

probably blow off the manhole. The gap (lift) will generally increase with higher velocity as well.

3. Time – convert to minutes

Volume (Gal.) = (Area) (Velocity) (Time) (448 gpm/cfs)

*Example:* Field observation of 2-inch gap and velocity of 4 ft/sec for a period of 3 hours, 30 minutes.

Volume (Gal.) = (0.524 $ft^2$) (4ft/sec) (210min) (448)
= 197,192 gallons

**D.2.3.D. Loss from Manhole without a lid in place**

If no cover exists, an estimate of the average height the water column (plume) extends above the top of the manhole frame must be made. Use the height to velocity estimate from (A) above to estimate the velocity. Be sure to adjust the height estimate downward for the affects of debris around the edge of the rim which will cause the height to be incorrectly high.

Area = ($\pi$) ($D^2/4$) = (3.14) ($2^2/4$) = 3.14 $ft^2$

Velocity – from field observation of water column height

Time - convert to minutes

Volume (Gal.) = (Area) (Velocity) (Time) (448 gpm/cfs)

*Example:* A manhole without a lid was observed to have an overflow with a 3 – inch high column of water for a period of 6 hours, 10 minutes

Volume (Gal.) = (3.14) (4.0 ft /sec) (370) (448)
Volume = 2,081,946 gallons

**D.2.3.E. Other**

1. Generally approach of estimating a cross sectional area where the flow is leaving and a velocity of flow can be used to determine a rate. This can be applied to any situation.

2. Several observations over an event to estimate the area and velocity are better than a single observation. The overflow examples above assume a constant rate over the period which will estimate volumes too high. As an example, if an hour at the beginning and end of each event is assumed for the flow to build up from zero to maximum and back to zero, a calculation could be done as follows:

*Example:* A manhole with a cover tilted open 2 inched with an estimated velocity of 4 ft/sec at its worst rate of loss for two hours and about 1-inch tilt with a velocity of 2 ft/sec observed at two other occasion over a 7 hour total event.

Worst case: 2 hours, 2 inched tilt, 4 ft/sec
Other times: 1 inch tilt, 2 ft/sec, time unknown
Total overflow time: 7 hours

Divide total of 7 hours into several periods

1st hour: Start to 1-inch tilt, 2 ft/sec

Volume (Gal.) = (Area) (Velocity) (Time) (448) x 50%
= (0.262) (2) (60) (448) (0.50)
= 7,043 gallons

7th hour: 1-inch tilt, 2 ft/ sec down to end
Same as above situation
Volume = 7,043 gallons

5 remaining hours:

2 hours at 2-inch tilt, 4 ft/sec
3 hours at 1-inch tilt, 2 ft. sec

Volume = (0.524) (4 ft/sec) (120 min) (448)
= 112,681 gallons

Volume = (0.262) (2 ft/sec) (180 min) (448)
= 42,255 gallons

Event Total = 7,043 + 7,043 + 112,681 + 42,255 = 169,022 gallons

# APPENDIX 5

# EXAMPLE NOTIFICATION LETTERS

# Texas Commission on Environmental Quality

# Public Notification Form for Wastewater Discharges

## Information about the Discharge

An unauthorized discharge or spill of wastewater has occurred from:

Wastewater Treatment Facility: _____ Collection System: ___

**Facility Name**:

**Person to contact for information**:

**Location of spill(s)**:

**Estimated date and time of spill(s)**:

**Estimated volume of spill(s)**:

**Type of Spill**:

**Description of the area potentially affected, including down gradient and lateral distance from spill(s) site**:

**Suspected cause of spill(s):**

.

## List of Actions Taken Including but, not Limited to:

**Notification of**

**Appropriate local government officials**: _____

**TCEQ Regional Office**: _____

**Containment of spill**:

**Increased monitoring of water supply systems:**

**Initiation of cleanup activities**:

## Precautionary Statements:

1. Persons using private drinking water supply wells located within ½ mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.
2. Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.
3. The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.
4. If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

Dear Resident,

We are very sorry you have recently been inconvenienced by a wastewater back-up in your home. If you would like to file a claim against the city for the damages, please contact the Senior Utility Specialist at 903-531-1238.

In order to file a claim with the City of Tyler, you must complete the official claims form Form 4-22. This form requires an original notarized signature. You may print the form, complete it and return it in person to the Senior Utility Specialist located at Tyler Water Utilities, 511 West Locust, Tyler, TX, 75702.

The City of Tyler reviews all property damage claims. Claims for damages are investigated and decided based on the laws that govern municipalities in the State of Texas. Under these laws, a property owner may recover property damages if negligent operation or use of a motor vehicle or motor driver equipment caused the damages. There are very limited grounds for a citizen to recover property losses resulting from the performance or non-performance of wastewater services.

If you have experienced damages to your property from wastewater overflows and you have a homeowner's insurance policy, you should contact your agent immediately for further assistance. The City of Tyler does not endorse any cleaning companies; however, you may search the internet or yellow pages for firms that can provide or assist in cleanup.  Search under categories such as: cleaning, water damage emergency services, cleaning remediation and water damage restoration.

If you would like to discuss general issues about your wastewater service, please feel free to call Tyler Water Utilities at 903-531-1238 during regular business hours, Monday thru Friday. We continue in our efforts to improve the quality of service provided to our customers. Wastewater personnel are available to respond to service interruptions seven days a week. The City of Tyler regrets any inconvenience this may have caused.

Sincerely,
Tyler Water Utilities

# CLAIMS NOTICE

**City of Tyler Charter, Section 79 provides that notice must be in writing, duly verified (notarized) of the death, injury or destruction and shall be filed within thirty (30) days after same has been sustained.**

**NAME OF CLAIMANT** _____

**ADDRESS** _____

**PHONE (DAY)** _____ **(EVENING)** _____

---

**DATE OF INCIDENT** _____ **TIME** _____ **A.M.** _____ **P.M.**

**LOCATION OF INCIDENT** _____

**DESCRIBE DAMAGE TO PROPERTY (INCLUDE AGE AND VALUE WHEN NEW)** _____

_____

**CURRENT LOCATION OF DAMAGED PROPERTY** _____

_____

---

**DESCRIBE ANY INJURIES SUSTAINED**: _____

_____

**NAME**: _____ **PHONE**: _____

**ADDRESS**: _____

**DESCRIPTION**: _____

_____

_____

**DESCRIBE HOW INCIDENT OCCURRED (GIVE FULL DETAILS; ATTACH ADDITONAL PAGES, IF NECESSARY.)** _____

_____

_____

_____

_____

_____

**AMOUNT CLAIMED (ATTACH ESTIMATES OF REPAIRS)** _____

**DO YOU CARRY INSURANCE FOR THIS LOSS? Yes** _____ **No**_____

**IF YES, WHAT COMPANY?** _____

**TYPE:** ____ **HOMEOWNERS** ____ **STANDARD FIRE** ____ **AUTO** ____ **OTHER**

**POLICY No.:** _____ **AGENT:** _____

**HAVE YOU MADE A CLAIM AGAINST YOUR INSURANCE COMPANY? Yes** __ **No** ____

**DESCRIBE ANY EFFORTS BY YOU TO PREVENT THE INCIDENT OR TO MINIMIZE THE DAMAGES:**

_____

_____

_____

---

**WITNESSES**

**NAME:** _____ **PHONE (DAY)** _____

**ADDRESS:**_____ **PHONE (EVENING)** _____

**NAME:** _____ **PHONE (DAY)** _____

**ADDRESS:**_____ **PHONE (EVENING)** _____

---

**IF CLAIM INVOLVED ALLEGED DEFECT IN CITY STREET, EQUIPMENT, OR OTHER PROPERTY, COMPLETE THE FOLLOWING:**

**DESCRIBE DEFECT:** _____

_____

_____

**NOTIFICATION TO CITY PRIOR TO INCIDENT:**

**DATE** _____ **TIME** _____ ___ **A.M.** __ **P.M.** **EMPLOYEE NOTIFIED** _____

**NOTIFICATION TO CITY AFTER INCIDENT:**

**DATE** _____ **TIME** _____ ___ **A.M.** ___ **P.M.** **EMPLOYEE NOTIFIED** _____

**IF CLAIM INVOLVED A VEHICLE COLLISION, COMPLTE THE FOLLOWING:**

**WAS A PEACE OFFICER'S ACCIDENT REPORT MADE? Yes _____No_____**

**CLAIMANT:**

**VEHICLE YEAR MODEL: _____COLOR: _____**

**MAKE & MODEL: _____**

**VEHICLE I.D. NO.: _____LICENSE PLATE:_____**

**DRIVER'S NAME: _____PHONE: _____**

**ADDRESS: _____**

**_____**

**_____**

**OWNER'S NAME: _____ PHONE: _____**

**ADDRESS: _____**

**CITY:**

**VEHICLE YEAR MODEL:_____ PHONE:_____**

**MAKE & MODEL: _____**

**DRIVER'S NAME: _____**

---

**I HEREBY DECLARE THAT THE FACTS STATED IN THIS NOTICE ARE TRUE.**

**CLAIMANT'S SIGNATURE: _____**

**SUBSCRIBED AND SWORN TO BEFORE ME this the ____ day of _____, _____.**

_____

**Notary Public State of Texas**

# APPENDIX 6
# TRAINING

**Various utility associations (American Water Works Association, Rural Water Association, National Association of Sewer Service Companies (NASSCO), Water Environment Association of Texas, Texas A&M Extension (TEEX), Water Environment Federation, etc.) have considerable training materials available to supplement the on-the-job training. Field supervisors and managers provide site training and oversight.**

Tyler Water Utilities
Wastewater Collection
Training Matrix

| | | | Repair/Construction | | | | | Admin/Office/Supervisor | | | | | | Preventative Maintenance | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **OUTSIDE VENDOR TRAINING *** | Hours | Crew Leader | Semi Skilled laborer | Laborer | Truck Driver | Equipment Operator | Operations Manager | Superintendent - PM | Superintendent - Construction | Senior Clerk | Senior Secretary | GIS Data Analyst | Utilities Maintenance Repair | Laborer | Utilities Maintenance Repair - CCTV | Semi-Skilled Laborer |
| 1 | Basic Wastewater Operations | 20 | R | R | R | R | R | R | R | R | E | E | E | R | R | R | R |
| 2 | Wastewater Collection | 20 | R | R | R | R | R | R | R | R | E | E | E | R | R | R | R |
| 3 | Water Utilities Safety | 20 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 4 | Water Utilities Calculations | 20 | E | E | E | E | E | E | E | E | NA | NA | NA | E | E | E | E |
| 5 | Pumps & Motor Maintenance | 20 | R | E | E | E | R | R | R | R | NA | NA | NA | R | E | R | E |
| 6 | Wastewater Treatment | 20 | E | E | E | E | E | E | E | E | E | E | E | E | E | E | E |
| 7 | Wastewater Laboratory | 20 | E | E | E | E | E | E | E | E | E | E | E | E | E | E | E |
| 8 | Wastewater Technology | 40 | E | E | E | E | E | E | E | E | E | E | E | E | E | E | E |
| 9 | CCTV - PACP Training | 20 | NA | NA | NA | NA | NA | E | R | R | NA | NA | R | NA | NA | R | NA |
| 10 | Applied Confined Space Safety | 8 | E | E | E | E | E | E | E | E | E | E | NA | E | E | E | E |
| | **CITY OF TYLER IN-HOUSE TRAINING** | | | | | | | | | | | | | | | | |
| | **Sewer Overflows** | | | | | | | | | | | | | | | | |
| 11 | SSO Reporting Procedures | | R | NA | NA | NA | E | R | R | R | R | R | NA | R | E | R | E |
| | **Work Orders/Asset Collection** | | | | | | | | | | | | | | | | |
| 12 | Initial OneSolution | | R | E | E | E | R | R | R | R | R | R | R | R | E | R | E |
| 13 | OneSolution Asset Management | | R | E | E | E | R | R | R | R | E | E | R | R | E | R | E |
| 14 | GIS/GPS Data Collection | | R | E | E | E | R | R | R | R | E | E | R | R | E | R | E |
| | **Vactor** | | | | | | | | | | | | | | | | |
| 15 | Setup/Initial Operations | | R | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 16 | Preventive Maintenance | | NA | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 17 | Operator - Cleaning/Nozzle Setup | | NA | E | E | E | E | E | R | R | NA | NA | NA | R | R | R | E |
| 18 | Decan/Cleaning Procedures | | NA | E | E | E | E | E | R | R | NA | NA | NA | R | R | R | E |
| | **Sewer Rodder** | | | | | | | | | | | | | | | | |
| 19 | Rodder - Setup/Initial Operations | | R | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 20 | Rodder - Preventive Maintenance | | NA | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 21 | Operator - Setup/Operations | | NA | E | E | E | E | E | R | R | NA | NA | NA | R | R | R | R |
| | **Water Jet Rig** | | | | | | | | | | | | | | | | |
| 22 | Jetter - Initial Setup/Operations | | R | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 23 | Jetter - Preventive Maintenance | | NA | E | E | E | E | R | R | R | NA | NA | NA | R | R | R | R |
| 24 | Operator - Setup/Operations | | NA | E | E | E | E | E | R | R | NA | NA | NA | R | R | R | R |
| | **CCTV** | | | | | | | | | | | | | | | | |
| 25 | CCTV - CUE's Rover & Wincam | | E | E | E | E | E | R | R | R | NA | NA | NA | E | E | R | R |
| 26 | Camera Preventive Maintenance | | NA | E | E | E | E | R | R | R | NA | NA | NA | E | E | R | R |
| 27 | PACP Recertification - 3 years | | NA | E | E | E | E | R | E | E | NA | NA | NA | NA | NA | R | NA |

**Notes:**

* Outside Vendor Training provided by TEEX and other outside vendors

**Legend:**

R = Required by COT
E = Elective
N/A = Not Applicable

Rev Date: 5/21/15

# APPENDIX 7
# REFERENCE REGULATIONS AND CODE

# Texas Administrative Code

| | |
|---|---|
| TITLE 30 | ENVIRONMENTAL QUALITY |
| PART 1 | TEXAS COMMISSION ON ENVIRONMENTAL QUALITY |
| CHAPTER 327 | SPILL PREVENTION AND CONTROL |
| RULE §327.32 | Reporting Requirements for Certain Accidental Discharges or Spills of Treated or Untreated Wastewater at Wastewater Treatment Facilities or Collection Systems |

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(a) The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Collection system--Pipes, conduits, lift stations, force mains, and all other constructions, devices, and appurtenant appliances used to transport domestic wastewater to a wastewater treatment facility.

(2) History of noncompliance--History of non-reporting or reoccurrences of accidental discharges or spills of treated or untreated wastewater.

(3) Local government--An incorporated city, a county, a river authority, or a water district or authority acting under Article III, Section 52, or Article XVI, Section 59 of the Texas Constitution.

(4) Wastewater treatment facility--All contiguous land and fixtures, structures, and appurtenances used for storing, processing, and treating wastewater. A wastewater treatment facility does not include the collection system located outside of the fenced area around a wastewater treatment facility.

(b) Except as provided by subsection (c) of this section, all accidental discharges or spills of treated or untreated wastewater shall be reported within 24 hours of the occurrence. A written submission shall be provided to the executive director within five days of the occurrence. The written submission shall contain a description of the accidental discharge or spill and its cause; the potential danger to human health or safety, or the environment; the duration of the accidental discharge or spill, including exact dates and times; if the cause of the accidental discharge or spill has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence, and to mitigate its adverse effects.

(c) The responsible person of a wastewater treatment facility or collection system that is owned or operated by a local government may report accidental discharges or spills of treated or untreated wastewater that do not endanger human health or safety or the environment to the executive director as a monthly summary if each individual accidental discharge or spill:

(1) has a volume of 1,000 gallons or less;

(2) is not associated with another simultaneous accidental discharge or spill of treated or untreated wastewater;

(3) is controlled or removed before the accidental discharge or spill enters water in the state or adversely affects a public or private source of drinking water; and

(4) is not otherwise subject to local regulatory control and reporting requirements.

(d) The responsible person shall submit a monthly summary by the 20th day of the month for each accidental discharge or spill that occurred during the previous month. The summary must

include, at a minimum, the:

(1) location, volume and content of the accidental discharge or spill;
(2) description of the accidental discharge or spill;
(3) cause of the accidental discharge or spill;
(4) dates and times of the accidental discharge or spill; and
(5) steps taken to reduce, eliminate, and prevent recurrence of the accidental discharge or spill.

(e) The responsible person must use one of the following methods for determining the volume of the discharge or spill.

(1) Visual estimate. If the accidental discharge or spill is less than 55 gallons, using a standard five-gallon bucket for reference, estimate the number of buckets that the discharge or spill would fill then multiply by five to obtain the number of gallons discharged or spilled. If the accidental discharge or spill is larger than 55 gallons, using a standard 55 gallon barrel for reference, estimate the number of barrels that the discharge or spill would fill and then multiply by 55 to obtain the number of gallons discharged or spilled.
(2) Measured volume. Identify the length, width, and depth of the contained accidental discharge or spill in feet and calculate the volume by multiplying length by width by depth by 7.5 (the conversion factor from cubic feet to gallons).
(3) Duration and flow rate. Identify separate estimates for the duration and the flow rate of the accidental discharge or spill. The estimated volume is calculated by multiplying the duration (hours or days) by the flow rate (gallons/hour or gallons/day).
(4) Other methods. The responsible person may use other volumetric calculation methodologies rather than those listed in paragraphs (1) - (3) of this subsection, so long as such methodologies include procedures to identify a duration, flow rate, depth, affected area, and total quantity of each spill (including, as appropriate, reference to estimation tools such as barrels, for example), and such methodology is consistent with standard and accepted industry practices. Such alternative methodologies must be identified in the responsible person's monthly report.

(f) The responsible person must keep records of all accidental discharges or spills of treated or untreated wastewater reported under this section. The records must remain on-site for three years and be made immediately available to commission staff upon request.

(g) The executive director may require more frequent reporting based on the responsible person's history of noncompliance.

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**Source Note:** The provisions of this §327.32 adopted to be effective June 2, 2016, 41 TexReg 3914

# TCEQ Subchapter A:
# Monitoring and Reporting System

**SUBCHAPTER A: MONITORING AND REPORTING SYSTEM**
**§§319.1 - 319.9, 319.11, 391.12**
**Effective November 26, 2009**

**§319.1. Monitoring and Reporting Requirements.**

All holders of waste discharge permits are required to periodically report the status of their compliance with the terms and conditions of their permits and with other relevant statutes in a manner approved by the executive director. The report shall contain results of flow measurements and results of analyses of samples taken, or the equivalent information determined by methods approved by the executive director. The status of all requirements of the permit shall be reported. The report may contain such other information concerning the discharges covered by the permit as the executive director may reasonably prescribe in order to establish a system for monitoring the quantity and quality of waste discharged into or adjacent to any water in the state and for monitoring the quality of any water in the state.

Effective July 27, 1988

**§319.2. Exclusions.**

Unless otherwise specified in the permit or otherwise ordered by the commission, land disposal or evaporation facilities shall be excluded from the reporting procedure. The commission may exempt other permittees from reporting requirements on a case-by-case basis provided that the permitted facility shall not directly or indirectly affect the quality of water in the state. Such exclusion shall be set forth in the permit. An exclusion from the reporting procedure, however, does not relieve a permittee from monitoring and record keeping requirements.

Effective July 27, 1988

**§319.3. Prior Permit Reporting Requirements.**

The holders of permits issued prior to December 19, 1969, which require or establish a specific reporting procedure, shall continue to report in accordance with that procedure until receipt of reporting forms developed by the executive director or until otherwise notified by the executive director.

Effective July 27, 1988

**§319.4. Parameters To Be Monitored.**

Each permittee will be required to monitor, on a regular basis, each parameter included in its permit which is also included on its commission "Monthly Effluent Report" form. Each permittee may also be required to monitor any other parameter(s) the executive director may reasonably deem necessary to adequately monitor the quality or quantity of any discharge. If the analysis of additional parameters is required, the permittee shall be provided written notification prior to the initiation of the requirement.

Effective July 27, 1988

**§319.5. Required Sampling Location and Frequency of Analysis or Measurement.**

(a) Required samples and measurements shall be taken of the effluent from the sampling point described in the permit. Should the permit not specify a sampling point, samples shall be collected immediately following the last treatment unit. These procedures shall be followed unless an alternate sampling and/or measuring point is approved in advance in writing by the executive director or his designee.

(b) Samples shall be taken and measurements shall be made at the minimum frequencies specified in the permit for each parameter. If a permit does not specify a sampling frequency, the permittee shall follow the frequencies set forth in Tables 1 and 2 in §319.9 of this title (relating to Self-Monitoring and Quality Assurance Schedules), basing the frequency of analysis on the currently applicable permitted average daily flow. Table 1 shall be applicable to treated domestic sewage effluent while Table 2 shall be applicable to all other wastewater effluents. If a parameter included in a permit is not listed in the applicable table, the permittee will be instructed by the executive director in writing as to what frequency of analysis shall be followed.

(c) The permit may specify different sampling and/or measurement frequencies than specified in Table 1 or Table 2 of §319.9 of this title (relating to Self-Monitoring and Quality Assurance Schedules) on a case-by-case basis, and in such cases the permit controls.

(d) For land disposal or evaporation facilities, the monitoring requirements shall be specified in the permit. The permittee shall monitor flow to a land treatment site on a daily basis and an evaporation system on a weekly basis when utilized. The specific plot or site used for land treatment shall be specified in the permit by name or description.

(e) The monitoring requirements set out in this subchapter are minimum requirements unless the permit specifies a lesser frequency. Additional measurements, samples, analyses, and recordation are encouraged in order to facilitate more effective management and control of facility operations. If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified in §319.11 of this title (relating to Sampling and Laboratory Testing Methods), at a minimum, the results of such monitoring that indicate permit noncompliance shall be included in the calculation and reporting of the value submitted on the required monthly effluent report. The permittee may report results of such monitoring that indicate permit compliance. Increased frequency of sampling shall be indicated on the report.

(f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

Effective October 8, 1990

**§319.6. Quality Assurance.**

The permittee shall assure the quality of all measurements through the use of blanks, standards, duplicate analyses, and spikes. At a minimum, the quality assurance requirements specified in Table 3 in §319.9 of this title (relating to Self-Monitoring and Quality Assurance Schedules) shall be utilized.

Effective July 27, 1988

**§319.7. Documentation of Monitoring Activities.**

(a) For each measurement or sample taken pursuant to the monitoring requirements of this chapter, the permittee shall maintain records of the following information:

(1) the exact place, date, and time of sample collection or measurement;

(2) the dates the analyses were performed;

(3) the identity of person(s) who collected the samples or made the measurements and the identity of person(s) and laboratory who performed the analyses;

(4) the results of all required analyses or measurements; and

(5) the technique or method of analysis including the results of adequate verifications of analytical precision and/or accuracy verified by means of the recommended guidelines in the Environmental Protection Agency manual entitled "Handbook for Analytical Quality Control in Water and Wastewater Laboratories," which are to be determined on the day the analyses are performed. The permittee shall meet the quality control requirements specified in Table 3.

(b) The permittee shall be subject to routine inspection of its compliance with subsection (a) of this section.

(c) All records and information resulting from the required monitoring activities, including but not limited to, all records concerning measurements and analyses performed and concerning calibration and maintenance of flow measurement and other instrumentation, shall be retained for a minimum of three years, or for a longer period if requested by the executive director or his designee.

(d) Unless otherwise specified in the permit, a monthly effluent report must be submitted each month by the 20th day of the following month for each discharge which is described in the permit whether or not a discharge is made for that month.

(e) Knowingly making any false statement on any report may result in the imposition of criminal and/or civil penalties as provided by state law.

Effective July 27, 1988

**§319.8. Required Signatures for Effluent Reports.**

Each effluent report shall contain two signatures. One signature must be that of the superintendent of the wastewater treatment facility or other person occupying a similar position associated with the operation of the treatment facility. The other signature shall be one from the following.

(1) If submitted by a public entity, a state or federal agency, or a corporation, the report should be signed by a principal executive officer, ranking elected official, commanding officer, or other employee duly authorized by the principal executive officer.

(2) If submitted by a partnership, the report should be signed by a general partner.

(3) If submitted by a sole proprietor, the report should be signed by the proprietor.

Effective July 27, 1988

**§319.9. Self-Monitoring and Quality Assurance Schedules**.

(a) The following table sets forth the self-monitoring schedules applicable to treated domestic sewage effluent.

Table 1
FREQUENCY OF MEASUREMENT

| Design Capacity MGD | Flow | BOD5 | Total Suspended Solids | Chlorine Residual | pH | Collecting of Samples and Taking Measurements |
|---|---|---|---|---|---|---|
| 0 to less than 0.10 | One instantaneous measurement each working day but not less than five measurements per week (b) (c) | One each week | One each week | One each working day but not less than five measurements per week (c) | One each month | The laboratory tests shall be made on a grab sample collected at peak loading periods, and flow measurements shall be taken concurrently with such grab samples. (d) |
| 0.10 to less than 0.50 | One instantaneous measurement each working day but not less than five measurements per week (b) (c) | One each week | One each week | One each working day but not less than five measurements per week (c) | One each month | The laboratory tests shall be made on a grab sample collected at peak loading periods, and flow measurements shall be taken concurrently with such grab samples. (d) |
| 0.50 to | The daily flow | One each | One each | One each day of | Two | The laboratory test |

| | | | | | | |
|---|---|---|---|---|---|---|
| less than 1.00 | measured by a totalizing meter | week | week | the week | each month | excepting the pH and chlorine residual test which are performed on grab samples or insitu shall be made on a composite sample proportioned according to flow, made up of three portions collected no closer together than 2 hours and with the first sample collected no earlier than 10:00 a.m. |
| 1.00 to less than 5.00 | The daily flow measured by a totalizing meter | Two each week | Two each week | One each day of the week | One each week | The laboratory test excepting the pH and chlorine residual test which are performed on grab sample or insitu shall be made on a composite sample proportioned according to flow, made up of six portions collected no closer together than 2 hours and with the first sample collected no earlier than 10:00 a.m. |
| 5.00 to less than 10.00 | The daily flow measured by a totalizing meter | One each weekday (a) | One each weekday (a) | One each day of the week | One each week-day | The laboratory test excepting the pH and chlorine residual test which are performed on grab samples or insitu shall be made on (a) 24-hour composite samples proportioned according to flow collected no closer together than 2 hours in 12 individual portions. |
| 10.00 or | The daily flow | One each | One each | One each day of | One | The laboratory test |

| | | | | | | |
|---|---|---|---|---|---|---|
| greater | measured by a totalizing meter | day of the week | day of the week | the week | each day of the week | excepting the pH and the chlorine residual test which are performed on grab samples or insitu shall be made on 24-hour composite samples proportioned according to flow collected no closer together than 2 hours in 12 individual portions. |

(b) The following table sets forth the bacteria self-monitoring schedules applicable to treated domestic sewage effluent that is discharged to water in the state.

Table 2
FREQUENCY OF BACTERIA MEASUREMENT

| **Minimum Required Frequency[1, 2, 3, 4]** | | | |
|---|---|---|---|
| **Flow (mgd)** | **Chlorine Systems** | **Ultraviolet Systems** | **Natural Systems** |
| >10 | 5/week | Daily | Daily |
| >5-10 | 3/week | Daily | 5/week |
| >1—5 | 1/week | Daily | 3/week |
| >0.5—1.0 | 2/month | Daily | 1/week |
| 0.1—0.5 | 1/month | 5/week | 2/month |
| <0.1 | 1/quarter | 5/week | 1/month |

(1) Sampling must be spaced across the time period at approximately equal intervals, with the exceptions of the five times per week sampling schedule. Five samples per week must be taken one on each of five days during a seven day period.

(2) A permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission of its compliance and request a less frequent measurement schedule.

(a) If the commission finds that a less frequent measurement schedule is protective of human health and the environment, the permittee will be given a less frequent measurement schedule. Daily will drop to 5/week, 5/week to 3/week, 3/week to 1/week, 1/week to 2/month, 2/month to 1/month, 1/month to 1/quarter, 1/quarter to 1/6 months.

(b) A violation of the bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule.

(c) A permittee that has had a violation while on a less frequent measurement schedule may not apply for another reduction in measurement frequency for at least 24 months from the last violation.

(3) A chemical system other than chlorine will be required to comply with the ultraviolet frequency schedule.

(4) The executive director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

(c) The following table sets forth the self-monitoring schedules applicable to nondomestic wastewater effluent.

Table 3
Frequency of Measurement
Volume of MGD

| Parameter | 0 to less than 0.05 | 0.05 to less than 0.50 | 0.50 to less than 2.00 | 2.00 to less than 10.00 | 10.00 or greater |
|---|---|---|---|---|---|
| Flow | One instantaneous measurement per operating day except on sample days when 3 instantaneous measurements made concurrently with the collection of sample portions are required. | One instantaneous measurement per operating shift - on sample days concurrent with the collection of a sample portion. | One instantaneous measurement per operating shift - on sample days concurrent with the collection of a sample portion or the reading from a totalizing flow meter. | Six instantaneous measurements per day spaced at equal intervals during the operating period or the reading from a totalizing flow meter. | Instantaneous measurements made each operating hour or the reading from a totalizing flow meter. |
| pH (a) | 1 per day | 1 per day | 1 per day | 1 per day | 1 per day |
| Temperature (b) | 1 per day | 3 per day | 3 per day | 6 per day | 12 per day |
| BOD | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |

| | | | | | |
|---|---|---|---|---|---|
| COD | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| TOC | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Oil & Grease (c) | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Ammonia Nitrogen | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Arsenic | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Barium | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Boron | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Cadmium | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Chromium | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Copper | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Lead | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Manganese | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Mercury | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Nickel | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Selenium | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Silver | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Zinc | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| TSS | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| TDS | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Chloride | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Sulphate | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Nitrate Nitrogen | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Sulfide (c) | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Phenol (c) | 1 per week | 2 per week | 2 per week | 3 per week | 1 per day |
| Collection | Samples shall be | Samples shall | Samples shall | Samples shall be | Samples shall |

| | | | | | |
|---|---|---|---|---|---|
| of Samples | composite samples made up of three portions, sized proportional to flow, collected to no closer together than one hour and over a span of time not exceeding 24 hours. | be composite samples made up of three portions, sized proportional to flow, one portion being collected during each operating shift or otherwise suitably distributed throughout the operating day. | be composite samples made up of three portions, sized proportional to flow, one portion being collected during each operating shift or otherwise suitably distributed throughout the operating day. | composite samples made up of six portions, sized proportional to flow, collected concurrently with the instantaneous flow measurements made during a 24 hour time span. | be 24 hour composite samples collected in 12 or more individual portions, sized proportional to flow, equally spaced throughout the operating day. |

(a) The required laboratory tests shall be made on grab samples and analyzed immediately after collection or analyzed in situ at the permit sampling point.
(b) The temperature shall be measured in situ on the water at the permit sampling point.
(c) The required laboratory tests shall be made on grab samples.

(d)The following table sets forth the quality assurance requirements for wastewater analyses.

Table 4

REQUIRED QUALITY CONTROL ANALYSES

| **Parameter** | **Blank** | **Standard** | **Duplicate** | **Spike** |
|---|---|---|---|---|
| Bacterial | A | | B | |
| Alkalinity | | A | B | |
| Ammonia Nitrogen | A | A | B | B |
| BOD | A | A | B | |
| BOD-carbonaceous | A | A | B | |

| | | | | |
|---|---|---|---|---|
| COD | A | A | B | B |
| Chloride | A | A | B | B |
| Chlorine-Total or Free | | D | | |
| Cyanide-Total or Amenable to Chlorination | A | A | B | B |
| Fluoride | A | A | B | B |
| pH | | C | | |
| Kjeldahl Nitrogen | A | A | B | B |
| Metals (all) | A | A | B | B |
| Nitrate Nitrogen | A | A | B | B |
| Nitrite Nitrogen | A | A | B | B |
| Oil & Grease | A | D | | |
| Orthophosphate | A | A | B | B |
| Oxygen (dissolved) | | A | B | |
| Phenols | A | A | B | |
| Phosphorus-Total | A | A | B | B |
| Specific Conductance | A | A | | |
| Sulfate | A | A | B | B |

| | | | | |
|---|---|---|---|---|
| Sulfide | A | A | B | |
| Sulfite | A | A | B | |
| TOC | A | A | B | B |
| TSS | A | | B | |
| TDS | A | A | B | |
| Organics by GC or GC/MS or other approved methods | A | A | E | E |

Where:

A - Wherever specified, at least one blank and one standard shall be performed each day that samples are analyzed.

B - Wherever specified, duplicate and spike analyses shall be performed on a 10% basis each day that samples are analyzed. If one to 10 samples are analyzed on a particular day, then one duplicate and one spike analyses shall be performed.

C - For pH analysis, the meter shall be calibrated each day that samples are analyzed using a minimum of two standards which bracket the pH value(s) of the sample(s).

D - For the oil and grease analysis and chlorine-total or free analysis, standards shall be analyzed on a 10% basis. If one to 10 samples are analyzed on a particular day, then one standard shall be analyzed. Duplicates may be analyzed in lieu of standards for the oil and grease analysis and chlorine-total or free analysis.

E - For GC and GC/MS analyses, duplicate and spike analyses shall be performed on a 5% basis. If one to 20 samples are analyzed in a month, then one duplicate and one spike analyses per month shall be performed.

Adopted November 4, 2009 Effective November 26, 2009

**§319.11. Sampling and Laboratory Testing Methods.**

(a) All sample collection shall be conducted according to recommendations found in the latest edition of *Standard Methods for the Examination of Water and Wastewater* (prepared and published jointly by the American Public Health Association, the American Waterworks Association, and the Water

Pollution Control Federation), or the Environmental Protection Agency manual entitled *Methods for Chemical Analysis of Water and Wastes* (1979), or the Environmental Protection Agency manual entitled *Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents* (1973).

(b) Sample containers, holding times, and preservation methods shall meet requirements specified in 40 Code of Federal Regulations (CFR) Part 136.

(c) Effluents shall be analyzed according to test methods specified in 40 CFR Part 136 or more recent editions of *Standard Methods for the Examination of Water and Wastewater* than those cited in Part 136.

(d) Flow measurements, equipment, installation, and procedures shall conform to those prescribed in the Water Measurement Manual, United States Department of the Interior Bureau of Reclamation, Washington, D.C., or methods that are equivalent as approved by the executive director.

(e) Laboratories shall routinely use and document intralaboratory quality control practices as recommended in the latest edition of the Environmental Protection Agency manual entitled *Handbook for Analytical Quality Control in Water and Wastewater Laboratories*. These practices will include the use of internal quality control check samples.

(f) The sampling and laboratory facilities, data, and records of quality control are subject to periodic inspection by commission personnel. Should the procedures specified in this section not be suitable to any particular situation, nonstandard sampling and testing techniques may be employed in accordance with the procedures outlined in §319.12 of this title (relating to Alternate Sampling and Laboratory Testing Methods).

Adopted July 24, 2002 Effective August 15, 2002

**§319.12. Alternate Sampling and Laboratory Testing Methods.**

(a) Should a permittee determine that the required standard sampling and testing techniques are not suited to its particular situation, the permittee shall make a written request for authorization to use alternate test procedures.

(1) Applications for alternate testing procedures will be made to the executive director.

(2) Items that shall be included with an application for alternate testing procedures are:

(A) name and address of the firm making the discharge;

(B) Texas Water Commission permit number;

(C) list of parameters for which alternate procedures are being requested;

(D) copy of the method of the alternate procedures; and

(E) the justification for the alternate test procedures.

(3) Additional information such as the comparability of data may also be requested by the executive director or his designee.

(b) In no instance shall a permittee use procedures not included in the references cited in §319.11 of this title (relating to Alternate Sampling and Laboratory Testing Methods) until written approval to do so has been received from the executive director or his or her designee. For Texas pollutant discharge elimination system (TPDES) permits a permittee shall only use procedures included in the references cited in §319.11 of this title unless other test procedures have been specified in the permit.

Effective October 8, 1990

## SUBCHAPTER B : HAZARDOUS METALS
## §§319.21-319.29

### §319.21. Definitions.

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise:

(1) **Average quality** - the arithmetic average (weighted by flow value) of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentrations made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the calendar day.

(2) **Daily composite quality** - the concentration of a sample consisting of a minimum of three grab samples of effluent collected at regular intervals over a normal operating day and combined proportional to flow, or a sample continuously collected proportional to flow over a normal operating day.

(3) **Grab sample quality** - the concentration of an individual sample of effluent collected in less than 15 minutes.

(4) **Hazardous metal** - includes each of the following metals in its elemental state and any of its compounds expressed as that metal: arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, and zinc.

(5) **Inland waters** - all surface waters in the state other than "tidal waters" defined below.

(6) **Tidal waters** - those waters of the Gulf of Mexico within the jurisdiction of the State of Texas, bays and estuaries thereto, and those portions of the river systems which are subject to the ebb and flow of the tides, and to the intrusion of marine waters.

### §319.22. Quality Levels - Inland Waters.

The allowable concentrations of each of the hazardous metals, stated in terms of milligrams per liter (mg/l), for discharge to inland waters are as follows:

| | Not to Exceed | | |
|---|---|---|---|
| Metal | Average | Daily Composite | Grab Sample |
| Arsenic | 0.1 | 0.2 | 0.3 |
| Barium | 1.0 | 2.0 | 4.0 |
| Cadmium | 0.05 | 0.1 | 0.2 |
| Chromium | 0.5 | 1.0 | 5.0 |
| Copper | 0.5 | 1.0 | 2.0 |
| Lead | 0.5 | 1.0 | 1.5 |
| Manganese | 1.0 | 2.0 | 3.0 |
| Mercury | 0.005 | 0.005 | 0.01 |
| Nickel | 1.0 | 2.0 | 3.0 |
| Selenium | 0.05 | 0.1 | 0.2 |
| Silver | 0.05 | 0.1 | 0.2 |
| Zinc | 1.0 | 2.0 | 6.0 |

**§319.23. Quality Levels - Tidal Waters.**

The allowable concentrations of each of the hazardous metals, stated in terms of milligrams per liter (mg/l), for discharge of tidal waters are as follows:

| | Not to Exceed | | |
|---|---|---|---|
| Metal | Average | Daily Composite | Grab Sample |
| Arsenic | 0.1 | 0.2 | 0.3 |
| Barium | 1.0 | 2.0 | 4.0 |
| Cadmium | 0.1 | 0.2 | 0.3 |
| Chromium | 0.5 | 1.0 | 5.0 |
| Copper | 0.5 | 1.0 | 2.0 |
| Lead | 0.5 | 1.0 | 1.5 |
| Manganese | 1.0 | 2.0 | 3.0 |
| Mercury | 0.005 | 0.005 | 0.01 |
| Nickel | 1.0 | 2.0 | 3.0 |
| Selenium | 0.1 | 0.2 | 0.3 |
| Silver | 0.05 | 0.1 | 0.2 |
| Zinc | 1.0 | 2.0 | 6.0 |

**§319.24. Dilution Prohibited.**

The attainment of the specified levels simply by dilution, in the absence of any treatment (that is, by use of extraneous or other wastewater intermixed to dilute a particular discharge) is specifically prohibited. The mercury level in the effluent stream from the facility in which a waste containing mercury originates shall be measured after treatment and before any extraneous water or wastewater from any other sources has been added.

**§319.25. Sampling and Analysis.**

Test procedures for the analyses of hazardous metals shall comply with any procedures specified in the regulations of the commission and shall conform to regulations published pursuant to §304(g) of the Federal Water Pollution Control Act Amendments of 1972. In the event a question arises concerning sampling and analysis, the executive director shall authorize or approve the method or methods of sampling and analysis to be used in measuring or calculating the quantity of a hazardous metal in an effluent.

**§319.26. Toxic Pollutant.**

The commission may require more stringent quality levels than those specified in §319.22 of this title (relating to Quality Levels - Inland Waters) and §319.23 of this title (relating to Quality Levels - Tidal Waters) where necessary to insure protection of water in the state. The commission may authorize

less stringent quality levels than those set forth in §319.22 of this title (relating to Quality Levels - Inland Waters) and §319.23 of this title (relating to Quality Levels - Tidal Waters) only where the applicant demonstrates that there will be no significant adverse impact on water quality and that the less stringent quality levels are necessary based on considerations consistent with the provisions of the Texas Water Code.

**§319.27. Groundwater Protection.**

Although this subchapter is directed towards discharges into surface waters in the state, it is the intention of the commission to apply the terms of this subchapter where practicable and necessary, in order to protect the quality of groundwater resources in the state.

**§319.28. Waste Discharge Amendment.**

Every waste discharge permit which does not currently specify effluent limitations for any of the hazardous metals covered by this subchapter is hereby amended to incorporate the terms of this subchapter. In all waste discharge permits which the commission may issue, renew or amend, the quality levels specified in this subchapter shall apply where the commission does not establish specific effluent limitations regarding a particular hazardous metal.

**§319.29. Limitations in Waste Discharge Permits Controlling.**

Where waste discharge permits specify effluent limitations for any of the hazardous metals covered by this subchapter, the limitations contained in the permit shall be controlling.

Date Effective: October 8, 1990

# TCEQ Subchapter C:
# Public Notice of Spills or Accidental Discharges from Wastewater Facilities Owned or Operated by Local Governments

## SUBCHAPTER C: PUBLIC NOTICE OF SPILLS OR ACCIDENTAL DISCHARGES FROM WASTEWATER FACILITIES OWNED OR OPERATED BY LOCAL GOVERNMENTS
## §§319.301 - 319.303
## Effective March 31, 2011

### §319.301. Definitions.

The following definitions apply to this subchapter.

(1) Alluvial well - A well completed in sedimentary deposits resulting from modern rivers.

(2) Appropriate local government officials -

(A) The county judge of a county in which a spill occurs requiring notification under §319.302 of this title (relating to Notification Requirements).

(B) The county judge of a county within 1/2-mile of a spill requiring notification under §319.302 of this title.

(C) The mayor and city manager of a city whose drinking water supply intake is within 1/2-mile of a spill requiring notification under §319.302 of this title.

(D) The director of a water district or authority, acting under the Texas Constitution, Article III, §52, or Article XVI, §59, whose drinking water supply intake is within 1/2-mile of a spill requiring notification under §319.302 of this title.

(3) **Drinking water** - All water:

(A) distributed by any agency or individual, public or private, for the purpose of human consumption;

(B) which may be used in the preparation of foods or beverages;

(C) which may be used for the cleaning of any utensil or article used in the course of preparation or consumption of food or beverages for human beings;

(D) supplied for human consumption; or

(E) used by any institution catering to the public.

(4) **Facility** - A wastewater treatment plant, collection facility, pumping station, or sewer pipeline owned or operated by a local government.

(5) **Groundwater recharge area** - An area where there is direct and rapid communication of flow from the surface downward to the drinking-water aquifer.

(6) **Karst** - A type of topography that is formed over limestone, dolomite, or gypsum by dissolving or solution, and that is characterized by closed depressions or sinkholes, caves, and underground drainage.

(7) **Local government** - An incorporated city, a county, a river authority, or a water district or authority acting under the Texas Constitution, Article III, §52 or Article XVI, §59.

(8) **Local media** - The daily newspapers and the radio and television media serving the counties and cities served by a facility or the aquifer area in which a spill or accidental discharge occurs, as well as these news organizations in the nearest metropolitan area.

(9) **Private source of drinking water** - A drinking water supply that is not a public source of drinking water.

(10) **Public source of drinking water** - A public water system which provides the public piped water for human consumption, which includes all uses described under the definition of drinking water in paragraph (3) of this section. Such a system must have a potential for at least 15 service connections or serve at least 25 individuals at least 60 days out of the year.

(11) **Responsible individual** - The individual designated by the owner of a facility to give the notices required by §319.302 of this title.

(12) **Spill** - An act or omission through which waste or other substances:

(A) are inadvertently discharged into water in the state; or

(B) will enter water in the state, unless controlled or removed.

(13) **Water in the state** - Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

Adopted November 17, 1999 Effective December 30, 1999

**§319.302. Notification Requirements.**

(a) The owner of a facility must designate a responsible individual to comply with this subchapter.

(b) In addition to the noncompliance notification to the commission required by §305.125(9) of this title (relating to Standard Permit Conditions) and any notification required under Chapter 327 of this title (relating to Spill Prevention and Control), the owner of a facility, through its responsible individual, must notify appropriate local government officials and the local media (see §319.301 of this title (relating to Definitions)) whenever one of the following types of spills occurs from the facility:

(1) a spill, regardless of volume, that the facility owner knows or has reason to know, will adversely affect a public or private source of drinking water;

(2) a spill with a volume of 50,000 gallons or more where one or more of the following conditions also exists:

(A) the spill occurs within 1/2-mile of a public or private source of drinking water;

(B) the spill occurs within 1/2-mile of a private drinking water well which is located within 1/2-mile of a public water supply well;

(C) the spill occurs within 1/2-mile up-gradient of a surface water intake of a public or private source of drinking water;

(D) the spill occurs in an active groundwater recharge area;

(E) the spill occurs up-gradient and within 1/2-mile of a karst terrain or shallow alluvial well that is a source of drinking water;

(3) a spill of 100,000 gallons or more.

(c) The responsible individual must issue the notice as quickly as possible, but not later than 24 hours after the facility becomes aware of the spill. The notice may be hand-delivered, sent by facsimile, e-mail, or by phone with follow-up written notice. The contents of the notice must comply with §319.303 of this title (relating to Notice to Local Officials and Local Media.)

(d) Within 48 hours of providing notice to appropriate local government officials and local media, the responsible individual must provide to the commission regional office in whose region the spill occurred a copy of the notice, the date notice was provided to local officials and local media, and a list of notice recipients.

Adopted March 9, 2011 Effect March 31, 2011

**§319.303. Notice to Local Officials and Local Media.**

(a) Persons responsible for a wastewater spill must ensure notice complies with subsections (b) and (c) of this section. Responsible persons may contact the commission to obtain a template which may be used in the event of a wastewater spill.

(b) For all wastewater spills as referenced in §319.302(b) of this title (relating to Notification Requirements) the notice must contain the following:

(1) one of the following statements:

(A) a spill from a wastewater treatment facility has occurred; or

(B) a spill from a collection facility has occurred;

(2) the facility name;

(3) person to contact for further information;

(4) the location of the spill;

(5) the estimated date and time of the spill;

(6) the estimated volume of the spill (number of gallons);

(7) the type of the spill (domestic, industrial, etc.);

(8) a description of the area potentially affected, including a down-gradient and lateral distance from the spill site;

(9) the suspected cause of the spill; and

(10) a list of actions that have been taken including, but not limited to:

(A) notification of:

(i) appropriate local government officials; and

(ii) the TCEQ regional office;

(B) containment of the spill;

(C) increased monitoring of water supply systems; and

(D) initiation or completion of clean up activities.

(c) If the wastewater spill meets the conditions of §319.302(b)(2) and/or (b)(3) of this title then the notice must also contain the following precautionary statements:

(1) Persons using private drinking water supply wells located within 1/2-mile of the spill site or within the potentially affected area should use only water that has been distilled or boiled at a rolling boil for at least one minute for all personal uses including drinking, cooking, bathing, and tooth brushing. Individuals with private water wells should have their well water tested and disinfected, if necessary, prior to discontinuing distillation or boiling.

(2) Persons who purchase water from a public water supply may contact their water supply distributor to determine if the water is safe for personal use.

(3) The public should avoid contact with waste material, soil, or water in the area potentially affected by the spill.

(4) If the public comes into contact with waste material, soil, or water potentially affected by the spill, they should bathe and wash clothes thoroughly as soon as possible.

Adopted March 9, 2011 Effective March 31, 2011

# TEXAS WATER CODE TITLE 2
# WATER ADMINISTRATION SUBTITLE D
# WATER QUALITY CONTROL CHAPTER 26
# WATER QUALITY CONTROL SUBCHAPTER A
# ADMINISTRATIVE PROVISIONS

SEC.26.001
DEFINITIONS

SEC.26.039
ACCIDENTAL DISCHARGES AND SPILLS.

WATER CODE

TITLE 2. WATER ADMINISTRATION

SUBTITLE D. WATER QUALITY CONTROL

CHAPTER 26. WATER QUALITY CONTROL

SUBCHAPTER A. ADMINISTRATIVE PROVISIONS

Sec. 26.001. DEFINITIONS. As used in this chapter:

(1) "Board" means the Texas Water Development Board.

(2) "Commission" means the Texas Natural Resource Conservation Commission.

(3) "Executive administrator" means the executive administrator of the Texas Water Development Board.

(4) "Executive director" means the executive director of the Texas Natural Resource Conservation Commission.

(5) "Water" or "water in the state" means groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(6) "Waste" means sewage, industrial waste, municipal waste, recreational waste, agricultural waste, or other waste, as defined in this section.

(7) "Sewage" means waterborne human waste and waste from domestic activities, such as washing, bathing, and food preparation.

(8) "Municipal waste" means waterborne liquid, gaseous, or solid substances that result from any discharge from a publicly owned sewer system, treatment facility, or disposal system.

(9) "Recreational waste" means waterborne liquid, gaseous, or solid substances that emanate from any public or private park, beach, or recreational area.

(10) "Agricultural waste" means waterborne liquid, gaseous, or solid substances that arise from the agricultural industry and agricultural activities, including without limitation agricultural animal feeding pens and lots, structures for housing and feeding agricultural animals, and processing facilities for agricultural products. The term:

(A) includes:

(i) tail water or runoff water from irrigation associated with an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone, as defined by Section 26.502; or

(ii) rainwater runoff from the confinement area of an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone, as defined by Section 26.502; and

(B) does not include tail water or runoff water from irrigation or rainwater runoff from other cultivated or uncultivated range land, pasture land, and farmland or rainwater runoff from an area of land located in a major sole source impairment zone, as defined by Section 26.502, that is not owned or controlled by an operator of an animal feeding operation or concentrated animal feeding operation on which agricultural waste is applied.

(11) "Industrial waste" means waterborne liquid, gaseous, or solid substances that result from any process of industry, manufacturing, trade, or business.

(12) "Other waste" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dyestuffs, acids, chemicals, salt water, or any other substance, other than sewage, industrial waste, municipal waste, recreational waste, or agricultural waste.

(13) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into any water in the state. The term:

(A) includes:

(i) tail water or runoff water from irrigation associated with an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone as defined by Section 26.502; or

(ii) rainwater runoff from the confinement area of an animal feeding operation or concentrated animal feeding operation that is located in a major sole source impairment zone, as defined by Section 26.502; and

(B) does not include tail water or runoff water from irrigation or rainwater runoff from other cultivated or uncultivated rangeland, pastureland, and farmland or rainwater runoff from an area of land located in a major sole source impairment zone, as defined by Section 26.502, that is not owned or controlled by an operator of an animal feeding operation or concentrated animal feeding operation on which agricultural waste is applied.

(14) "Pollution" means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(15) "Sewer system" means pipelines, conduits, storm sewers, canals, pumping stations, force mains, and all other constructions, devices, and appurtenant appliances used to transport waste.

(16) "Treatment facility" means any plant, disposal field, lagoon, incinerator, area devoted to sanitary landfills, or other facility installed for the purpose of treating, neutralizing, or stabilizing waste.

(17) "Disposal system" means any system for disposing of waste, including sewer systems and treatment facilities.

(18) "Local government" means an incorporated city, a county, a river authority, or a water district or authority acting under Article III, Section 52, or Article XVI, Section 59 of the Texas Constitution.

(19) "Permit" means an order issued by the commission in accordance with the procedures prescribed in this chapter establishing the treatment which shall be given to wastes being discharged into or adjacent to any water in the state to preserve and enhance the quality of the water and specifying the conditions under which the discharge may be made.

(20) "To discharge" includes to deposit, conduct, drain, emit, throw, run, allow to seep, or otherwise release or dispose of, or to allow, permit, or suffer any of these acts or omissions.

(21) "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants or wastes are or may be discharged into or adjacent to any water in the state.

(22) "Identified state supplement to an NPDES permit" means any part of a permit on which the commission has entered a written designation to indicate that the commission has adopted that part solely in order to carry out the commission's duties under state statutes and not in pursuance of administration undertaken to carry out a permit program under approval by the Administrator of the United States Environmental Protection Agency.

(23) "NPDES" means the National Pollutant Discharge Elimination System under which the Administrator of the United States Environmental Protection Agency can delegate permitting authority to the State of Texas in accordance with Section 402(b) of the Federal Water Pollution Control Act.

(24) "Treatment works" means any devices and systems used in the storage, treatment, recycling, and reclamation of waste to implement this chapter or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including:

(A) intercepting sewers, outfall sewers, pumping, power, and other equipment and their appurtenances;

(B) extensions, improvements, remodeling, additions, and alterations of the items in Paragraph (A) of this subdivision;

(C) elements essential to provide a reliable recycled supply such as standby treatment units and clear-well facilities;

(D) any works, including sites and acquisition of the land that will be a part of or used in connection with the treatment process or is used for ultimate disposal of residues resulting from such treatment;

(E) any plant, disposal field, lagoon, canal, incinerator, area devoted to sanitary landfills, or other facilities installed for the purpose of treating, neutralizing, or stabilizing waste; and

(F) facilities to provide for the collection, control, and disposal of waste heat.

(25) "Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

(26) "Affected county" is a county to which Subchapter B, Chapter 232, Local Government Code, applies.

Amended by Acts 1977, 65th Leg., p. 1640, ch. 644, Sec. 1. Renumbered from Sec. 21.003 and amended by Acts 1977, 65th Leg., p. 2207, ch. 870, Sec. 1, eff. Sept. 1, 1977. Amended by Acts 1981, 67th Leg., p. 985, ch. 367, Sec. 43, eff. June 10, 1981; Acts 1985, 69th Leg., ch. 795, Sec. 1.064, eff. Sept. 1, 1985; Acts 1987, 70th Leg., ch. 977, Sec. 19, eff. June 19, 1987; Acts 1989, 71st Leg., ch. 642, Sec. 1, eff. Aug. 28, 1989; Acts 1991, 72nd Leg., 1st C.S., ch. 3, Sec. 1.068, eff. Aug. 12, 1991; Acts 1995, 74th Leg., ch. 979, Sec. 24, eff. June 16, 1995; Acts 1999, 76th Leg., ch. 404, Sec. 43, eff. Sept. 1, 1999; Acts 2001, 77th Leg., ch. 965, Sec. 12.01, eff. Sept. 1, 2001.

WATER CODE

TITLE 2. WATER ADMINISTRATION

SUBTITLE D. WATER QUALITY CONTROL

CHAPTER 26. WATER QUALITY CONTROL

SUBCHAPTER A. ADMINISTRATIVE PROVISIONS

Sec. 26.039. ACCIDENTAL DISCHARGES AND SPILLS. (a) As used in this section:

(1) "Accidental discharge" means an act or omission through which waste or other substances are inadvertently discharged into water in the state.

(2) "Spill" means an act or omission through which waste or other substances are deposited where, unless controlled or removed, they will drain, seep, run, or otherwise enter water in the state.

(3) "Other substances" means substances which may be useful or valuable and therefore are not ordinarily considered to be waste, but which will cause pollution if discharged into water in the state.

(b) Whenever an accidental discharge or spill occurs at or from any activity or facility which causes or may cause pollution, the individual operating, in charge of, or responsible for the activity or facility shall notify the commission as soon as possible and not later than 24 hours after the occurrence. The individual's notice to the commission must include the location, volume, and content of the discharge or spill.

(c) Activities which are inherently or potentially capable of causing or resulting in the spillage or accidental discharge of waste or other substances and which pose serious or significant threats of pollution are subject to reasonable rules establishing safety and preventive measures which the commission may adopt or issue. The safety and preventive measures which may be required shall be commensurate with the potential harm which could result from the escape of the waste or other substances.

(d) The provisions of this section are cumulative of the other provisions in this chapter relating to waste discharges, and nothing in this section exempts any person from complying with or being subject to any other provision of this chapter.

(e) If an accidental discharge or spill described by Subsection (b) from a wastewater treatment or collection facility owned or operated by a local government may adversely affect a public or private source of drinking water, the individual shall also notify appropriate local government officials and local media.

(f) The commission by rule shall specify the conditions under which an individual must comply with Subsection (e) and prescribe procedures for giving the required notice. The rules must also state the content of the notice and the manner of giving notice. In formulating the rules, the commission shall consider:

(1) the nature and extent of the discharge or spill;

(2) the potential effect of the discharge or spill; and

(3) regional information about the susceptibility of a particular drinking water source to a specific type of pollution.

Amended by Acts 1977, 65th Leg., p. 2207, ch. 870, Sec. 1, eff. Sept. 1, 1977; Acts 1985, 69th Leg., ch. 795, Sec. 1.085, eff. Sept. 1, 1985; Acts 1999, 76th Leg., ch. 208, Sec. 1, eff. Sept. 1, 1999.